EVALUATING MULTIPLE FAMILY AND MEDIUM DENSITY HOUSING

A Manual to Assist in the Assessment, Evaluation and Development of Multiple Family and Medium Density Housing, Particularly in Alberta's Small Towns.

PREPARED FOR:

Alberta
MUNICIPAL AFFAIRS
Planning Services Division

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS –
INTRODUCTION 1
OPERATION AND USE OF THIS MANUAL 1

PART I PREPARING FOR DEVELOPMENT –
- A. The Approval Process 3
- B. Ownership and Finance 4
- C. Demand and Market Analysis 5
- D. Management and Maintenance 7

PART II THE SITE –
- E. Community Context 13
- F. The Site 21
- G. Site Design 27
  - 1. Factors Affecting Building Location Siting 28
  - 2. Services 34
  - 3. Density 34
  - 4. Identity 40
  - 5. Security and Privacy 42
  - 6. Access and Circulation 44
  - 7. Parking 50
  - 8. Open Space and Landscaping 56
  - 9. Site Amenities and Services 62
  - 10. Children's Play Areas 66
  - 11. Architectural Control 72

PART III THE UNIT –
- H. Unit Design 79
  - 1. Unit Type Mix 80
  - 2. Adaptability of the Unit 82
  - 3. Comfort and Convenience 86
  - 4. Accessibility and Circulation 88
  - 5. Energy Conservation 90
  - 6. Spaces Within the Unit 96
  - 7. Outdoor Living Area 104

PART IV SUMMARY EVALUATION 111

PART V APPENDICES –
- I. Glossary of Terms 127
- J. Bibliography 133
- K. Manual Evaluation 139

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Introduction

Introduction

This manual has been prepared to provide guidance to Municipal Councils, officials, private developers, local builders, designers and consultants in the designing and evaluation of multiple and medium density housing projects in small towns in Alberta. It is designed as a working tool to assist not only in the improvement of quality of design, but also in the improvement of communication and understanding between the various actors that become involved in such projects.

If you are a contractor, councillor, building inspector, developer, realtor, loans officer, designer or potential user of multiple family housing, this manual is designed to make your planning, design and development decisions easier, more efficient and productive.

Whether the concerns are political or financial, whether they deal with the approval process or the design process, or whether they relate to the management or occupancy of a medium density or multiple family housing project, this manual can help resolve concerns more effectively.

OPERATION OF THE MANUAL

This manual is comprised of a series of questions, illustrative examples and references which relate to the various aspects of locating, designing and maintaining a multiple family building. It is ideal for use in these situations:

- deciding where to build or whether a particular site is suitable — see Part I
- deciding whether a particular design is the best solution — see Part II
- deciding what internal layout features are most desirable — see Part III
- deciding if a project as proposed is the best that can be achieved. — see Parts I, II, and III

A broad familiarity with the overall contents of this manual can be obtained by skimming the key or left hand columns of the report then focussing in on the parts that are most relevant to a particular project. You are encouraged to make notes in the margin, insert your own by-law standards - or note other special circumstances, as the case may be.

A chapter in this manual, titled **Multiple Family Housing — Summary Evaluation,** contains a summary of all the questions asked and a sample Project Evaluation Form. These can be copied and used as attachments to each proposed project as a handy reference and evaluation record.

A questionnaire at the end of this manual provides you with the opportunity to comment on the manual's usefullness. It is intended that a follow-up workshop be held in about a year's time when the value of this manual can be assessed.

Until then...good luck.

PART I — Preparing for Development

PART I. A — The Approval Process

A.
THE APPROVAL PROCESS

The many steps that must be undertaken to obtain the required approvals for a multiple family and medium density housing project are just a part of a much more complex series of steps that must be followed by the developer carrying a project from acquisition of land to actual completion of the development and rental and possible sale. The complexity of the development process and the impact of delays in the approval process result in increased costs. Every task takes time, and time on this side of the equation is costly.

The remaining portions of the check list make the assumption that approvals under the General Municipal Plan, the Land Use Bylaw and the Subdivision Regulation have already been applied for and granted. This check list therefore does not take into account those steps required to amend the Land Use Bylaw or to change the general designation of land use functions as depicted in the General Municipal Plan.

Adequate information must be provided for a project if approvals are to be obtained easily. This not only helps the developer ascertain his needs and requirements in order to facilitate quick approval of a project, but also allows the approving agency to examine the essential and important points of a development so that the approvals can be given in a short time. Hopefully this manual can assist in identifying information needs that all parties can accept as the basis for decisions.

Ref:

- — *The Planning Act, 1977* (as amended)
- — *The Subdivision Regulation* (as amended)
- — The General Municipal Plan for the Community
- — Alberta Building Code 1981, Part 9, "Housing and Small Buildings"
- — National, Provincial and Local Health, Fire and Safety Codes
- — The Land Use Bylaw for the Community
- — Local Bylaws.

PART I. B — Ownership and Finance

B.
OWNERSHIP AND FINANCE

The nature of the ownership and financing will tell the approving agency a great deal about the quality of construction, long term maintenance and limitations to changes suggested by the agency. Canada Mortgage and Housing Corporation or other lending institutions can be relatively inflexible in approving some aspects of designs for mortgaging. Tax breaks, on the other hand, encourage non-resident speculative developments which rely on the tax write off for their initial return on investment. Such projects may lack in quality of construction, compliance with landscaping or other 'fringe benefits' important to the long term quality of the structure.

OWNERSHIP & FINANCE QUESTIONS

B.1 (a)
OWNERSHIP

WHO WILL OWN THE PROJECT?

- Ownership will reflect the level and nature of an interest in a project.
- Ownership may also reflect possible maintenance and management concerns.

B.1 (b)
FINANCING

WHO WILL BE RESPONSIBLE FOR FINANCING THE PROJECT?

- If the financing is to be provided by such agents as Alberta Home Mortgage Corporation, Canada Mortgage and Housing Corporation, or Alberta Housing Corporation there may be a requirement for specific standards and construction performance which could affect approvals.
- If the financing is provided by absentee owners it could reflect on the quality of the design, construction, maintenance and operation of the project.

B.1 (c)
FINANCIAL IMPACT

WHAT WILL LIKELY BE THE FINANCIAL IMPACT OF DELAYS IN THE APPROVAL PROCESS?

- Are specific design requirements being requested that could result in extensive changes to the design? The justification for such requests should be examined in the light of probable benefit.
- Are changes in the design a result of approval requirements and do they in fact improve the design and liveability of the project? In effect, do the "rules and regulations" for financing acceptance (mortgage approval) make sense for the project in this community?

EXAMPLES	REFERENCES

PART I. C —
Demand and Market Analysis

C.
DEMAND AND MAR[illegible] ANALYSIS

Questions on the demand and market for multiple family and medium density housing should be asked by both the developer owner and the town administration or Council.

If the questions are not asked, serious imbalances in the housing market and housing stock could occur particularly in small communities. Positive answers provide the developer with justification to proceed while the Council needs to be assured that acceptable alternatives in housing are being provided within their community.

If repeated pressures from developers call for one kind of unit (e.g., apartment) instead of another (e.g., grade oriented) the town should consider using its Land Use Bylaw to create use classes and zones which will encourage the correct balance; e.g., a higher density of smaller grade oriented units and a lower density of walkup apartments.

If, in asking these questions, serious doubts arise as to the demand for this type of housing, then both the developer and the town administration ought to question the wisdom of proceeding with the development, or at least ought to be aware of potential problems that may occur such as vacancy, vandalism, change in purpose, lack of maintenance, or change in ownership.

DEMAND & MARKET ANALYSIS QUESTIONS

C.1 (a)
DEVELOPMENT PRESSURE AND DEMAND

WHAT ARE THE PRESSURES FORCING THE BUILDING OF MULTIPLE FAMILY OR MEDIUM DENSITY HOUSING IN THIS COMMUNITY?

- Natural growth, rapid industrial expansion, resource industrial development, agricultural growth or pressure for "dormitory" or "satellite" growth all contribute to a market for this type of housing.
- Providing housing for lower income groups, or as alternatives to existing housing stock also contribute to demand for multiple family housing.
- An understanding of the existing housing base and the reasons for expansion pressure will enable the developer and administration to develop appropriate amounts and appropriate types of development to satisfy the pressures. Basic statistical information about the community, the existing housing base and community profile (employment, family size and mix, income and mobility) provide a starting point for this understanding.
- Projections of industrial or other growth provide another indication of demands for housing.
- Current rents and sale prices indicate basic economic factors needed to determine financial return on the investment.

C.1 (b)
COMMUNITY NEEDS

DOES THE PROJECT MEET THE NEEDS OF THE COMMUNITY FOR HOUSING ITS ANTICIPATED POPULATION?

- Council and the administration usually have documented ideas as to how their community is growing. A knowledge of where the demand for housing is coming from and leading to permits them to make rational judgements on the amount of land which should be designated for multiple family or medium density housing and the appropriateness of densities being proposed.

EXAMPLES	REFERENCES

PART I. D —
Management and Maintenance

D.
MANAGEMENT AND MAINTENANCE

In the lifetime of any multiple family or medium density housing project that provides almost entirely rental accommodation, tenant turnover is high. This leads to constant maintenance and upkeep. Management and continued maintenance, therefore, become extremely important.

A difficult and integral part in the management and maintenance program is the availability of local tradesmen and supplies to maintain a project as it was originally designed and built. Thus the designer working in a small community should understand the problems of material and service supply, and design the project with this in mind.

Finally, the selection of surface finishes at inappropriate locations can lead to further problems of management and maintenance, all of which stem from inappropriate design.

Questions asked under this heading are intended to satisfy the approving authorities that the project, once occupied, will not deteriorate rapidly and that the project will retain at least some semblance of the overall appearance of that proposed by the developer.

All too often the lack of maintenance leads to the project deteriorating, which in turn leads to the wrong perception the general public might have about all similar projects.

MANAGEMENT & MAINTENANCE QUESTIONS

D.1 (a)
SECURITY

WHO WILL BE RESPONSIBLE FOR THE SECURITY OF THE PROJECT AND ITS MANAGEMENT?

- Layouts and design which are self policing will assist in the maintenance and managment of a project. Opportunities to oversee areas of the surrounding grounds or the entrance doors of units improve local security.
- Absentee management tends to leave the project without control when it is occupied and without proper attention when maintenance is required.

D.1 (b)
GARBAGE PICK-UP AND SNOW REMOVAL

HAS ADEQUATE PROVISION BEEN MADE FOR GARBAGE AND SNOW REMOVAL AND STORAGE?

- The location of garbage bins relative to each unit is important to ensure the easy delivery of garbage to central pick-up points.
- The ease with which the central garbage collection area can be accessed and cleaned is important to ensure its proper maintenance and management.
- Effective screening of garbage collection areas must be concerned with not only the visual aspects of such screens but easy access to the collection areas without damaging the screens.
- Snow storage and removal require both storage areas and appropriate surfaces for easy clearing. The difficulties of working around trees, parked cars and grass islands limit the ease with which the parking areas and circulation routes can be cleaned and cleared.

EXAMPLES

REFERENCES

G.5 Security

G.9 Site Amenities and Services

MANAGEMENT & MAINTENANCE QUESTIONS

D.1 (c)

MAINTENANCE OF LANDSCAPING AND EXTERNAL AREAS

HAS CONSIDERATION BEEN GIVEN TO THE MAINTENANCE OF LAWNS, FENCES, PLANTING AND INTERIOR AND EXTERIOR BUILDING AND ROAD SURFACES INCLUDING WORKSHOP SPACE AND MAINTENANCE EQUIPMENT STORAGE?

- All area surfaces and finishes in a project have to be accessible for maintenance, repair and replacement if necessary.
- All areas, surfaces and finishes should be considered for possible problems such as vandalism, and accidental damage; i.e., windows at ground level, wall surfaces adjacent to public pathways and play areas, wall and floor surfaces of public pathways, corridors and stairs, and trees and planting adjacent to parking and active play areas.
- Equipment used for lawn cutting, tree and garden maintenance needs to be stored.

D.1 (d)

UTILITY MAINTENANCE

HAS CONSIDERATION BEEN GIVEN TO MAINTENANCE OF MECHANICAL AND ELECTRICAL SYSTEMS?

- Local tradesmen should be able to repair and maintain the systems incorporated into the project.
- Spare parts should be available locally. Material and equipment that has to be ordered from distant centres could cause delays and inconveniences.

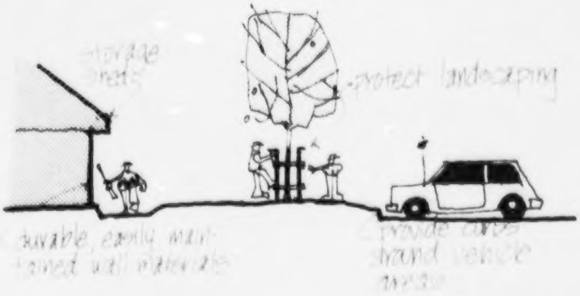
D.1 (e)

WORKSHOP FACILITIES

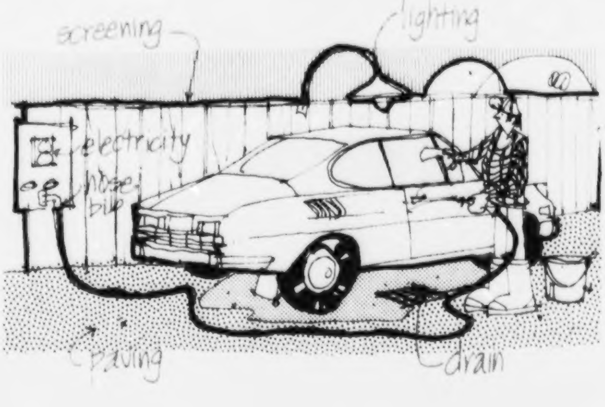
IS THERE A PLACE FOR RESIDENTS TO DO THEIR OWN REPAIRS?

- Facilities should be provided for residents to undertake their own repairs, such as repairs to equipment within their rented units.
- Car or vehicle maintenance should be permitted in the public parking areas provided the area is properly screened and maintained. Major vehicle maintenance and the storage of inoperative vehicles should not be permitted.

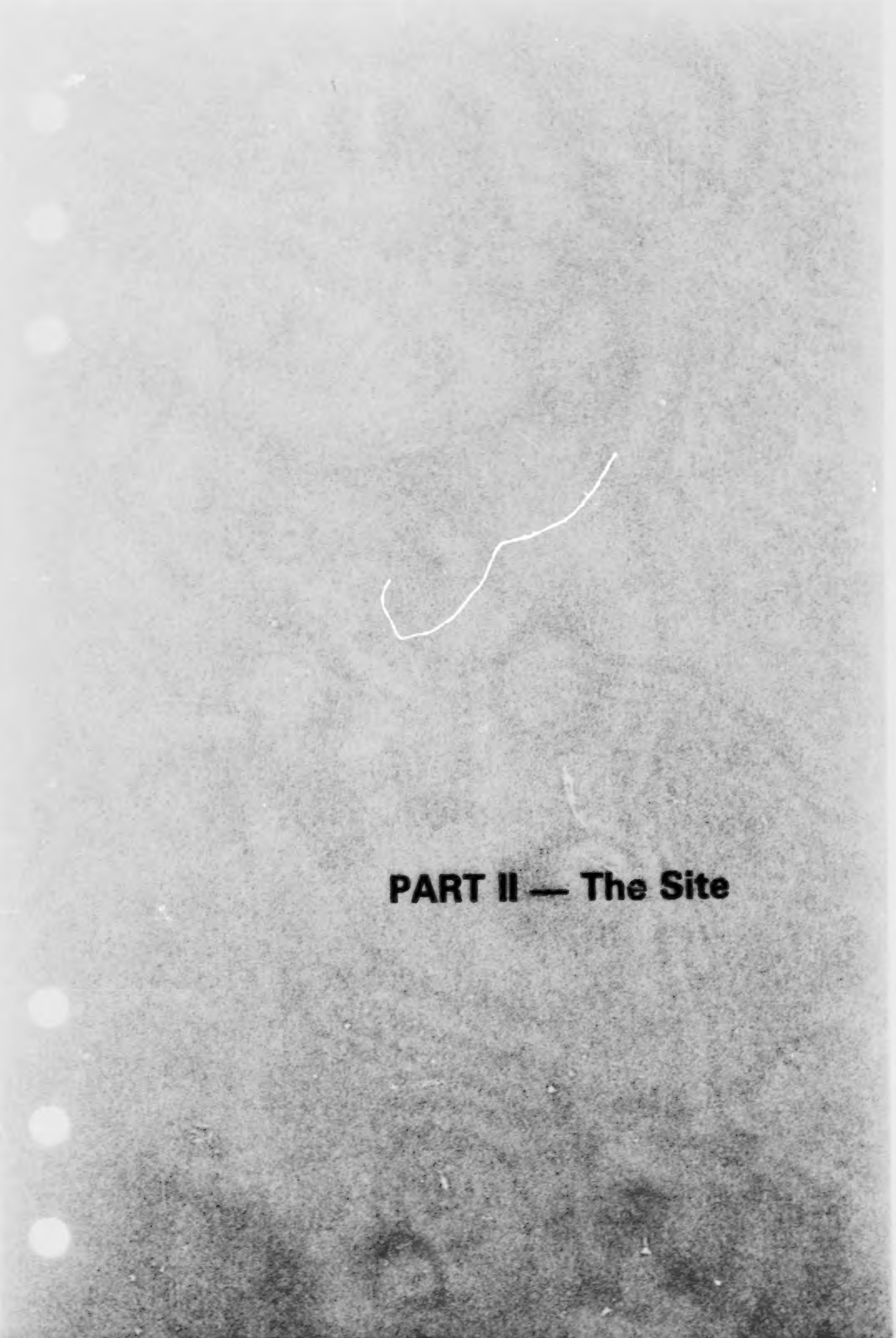
EXAMPLES **REFERENCES**


storage sheds
protect landscaping
durable, easily maintained wall materials
provide curbs around vehicle areas

Doc. #6: Housing Facilities at High Densities


screening
lighting
electricity
hose bib
paving
drain

PART II — The Site



PART II.E — Community Context

E.
COMMUNITY CONTEXT

This section deals with the general community context in which multiple family or medium density housing might be located. The questions are designed to develop an understanding of how the project might affect or be affected by the surroundings.

In particular, the questions are designed so that concerns such as proximity of public facilities are measured. They also deal with "scale" in the sense that large multiple family and medium density projects located in small towns may result in potential ghettos where all the housing types, all family incomes, and the demographic and social profiles tend to be similar. This could affect the requests for and provision of public facilities.

Questions relating to community context also allow for the raising of concerns where special considerations need to be given in the design of the project, such as the provision for a specific group of workers, handicapped or elderly people.

COMMUNITY CONTEXT QUESTIONS

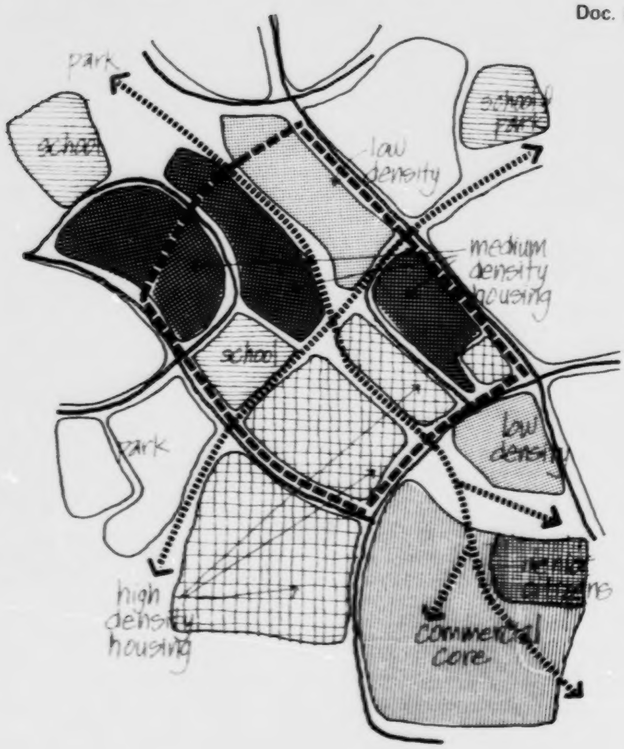
E.1 (a)
TYPE OF HOUSING

IS THE PROJECT COMPATIBLE WITH THE SOCIAL AND ECONOMIC PATTERNS EVIDENT IN THE EXISTING AREA?

- To understand how a project might affect or be affected by its surroundings, consideration must be given as to whether it is
  - new housing in a new residential area,
  - infill housing in an existing residential area,
  - housing adjacent to non-residential uses, or
  - renovation of existing housing in order to increase density?

- New develoment can provide significant benefits to an existing community in that:
  - it may revitalize an area's property values,
  - it may develop a previously vacant lot, or
  - it may include facilities that could benefit the neighbourhood.

EXAMPLES


park
school
school park
low density
medium density housing
school
park
low density
senior citizens
high density housing
commercial core

REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

E.1 (b)
NEIGHBOURHOOD SCALE AND CHARACTER

DOES THE PROJECT "FIT" INTO ITS NEIGHBOURHOOD IN TERMS OF SCALE AND ARCHITECTURAL CHARACTER?

- A new development should provide some degree of compatibility with the existing surroundings.
- Height, volume and number of buildings should complement adjacent sites and uses.
- Location and size of buildings should be designed to avoid blocking sunlight into adjacent sites.
- New street systems should be integrated into surrounding street patterns.
- Physical shapes and exterior finishes of buildings should be made to blend in with surrounding ones or at least to reflect the scale or architectural character of the area.

E.1 (c)
EFFECTS ON COMMUNITY AMENITIES AND FACILITIES

WHAT IS THE RELATIONSHIP OF THE PROJECT TO THE GENERAL AMENITIES OF THE AREA SUCH AS SHOPS, SCHOOLS, RECREATION FACILITIES, COMMUNITY FACILITIES, TRANSPORTATION AND UTILITIES?

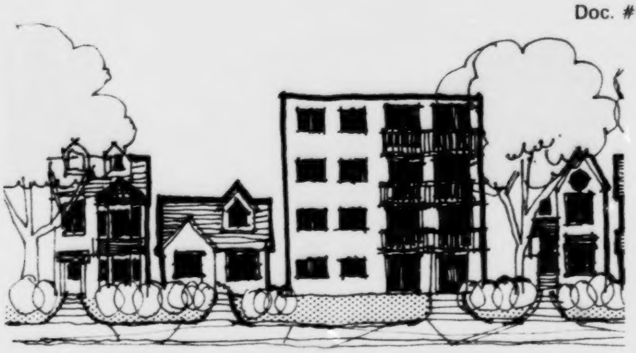
- The ease of access to general amenities provided within a community affects the desirability of the housing as a place to live.
- The effect of additional population on the capacity of the existing community facilities to service the new population will be influenced by the type of facility, the area it is designed to serve and the rate of development of the community as a whole. Factors which should be taken into account include the use of the facility, local patterns of community activity, travel time between home and facility and the long term growth policies of the community.
- The following should be on the project site and within a short walk from the unit:
  - garbage receptacle
  - post office box
  - laundry
  - storage area
  - pre-school play lot (optional)
  - automobile parking (for project)
  - open space area for strolling, with sitting places and meeting places
- The following can be a longer walk from the home (usually off site):
  - elementary school
  - local store
  - community centre
  - children's playground
  - day care nursery
  - church
- The following facilities should ideally be less than a 10 minute bicycle or car ride away:
  - post office
  - local shops offices
  - drug store
  - social services
  - local pub or bar
  - park with community facilities (pool, tennis courts, etc.)
  - supermarket
  - bank
  - library
  - health clinic
  - small restaurant

EXAMPLES

REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Densities

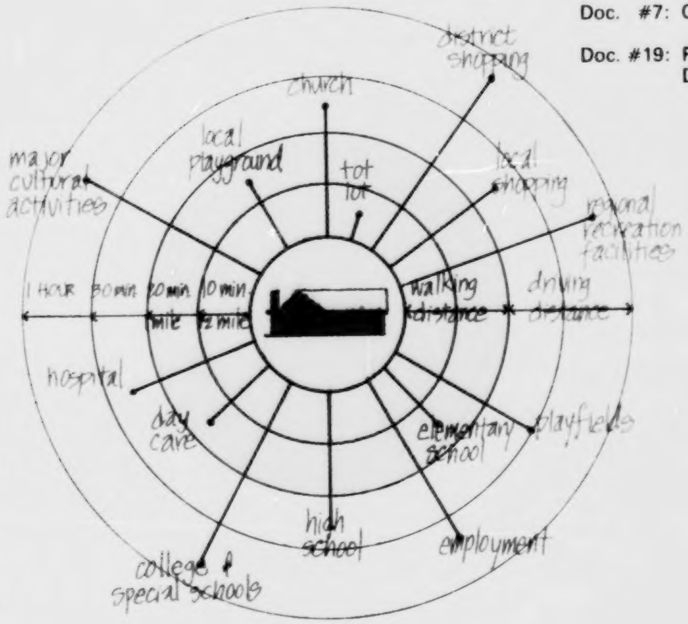


Doc. # 3: Urban Planning and Design Criteria

Doc. # 5: Site Planning Criteria — CMHC

Doc. #7: Compact Housing

Doc. #19: Residential Site Development


district shopping
church
local playground
tot lot
local shopping
major cultural activities
regional recreation facilities
1 HOUR
30 min
20 min
10 min
1 mile
½ mile
walking distance
driving distance
hospital
day care
elementary school
playfields
high school
employment
college & special schools

E.1 (d)

SPECIAL CONCERNS

WHAT SPECIAL CONCERNS HAVE BEEN RAISED BY THE PROPOSAL AND HOW HAVE THEY BEEN DEALT WITH?

- Special concerns that could be raised are:
  - community concerns,
  - school and recreation concerns,
  - fire and police protection,
  - density issues,
  - nature of ownership, and
  - other community specific concerns.
- It is very important that all participants in the development and approval of a project understand the concerns, issues, and implications that the new development will have on the town and community.
- The development should not overload existing neighbourhood and community facilities and services.
- Larger or more controversial projects should allow for input and involvement by the community.
- If, in meeting a demand for housing for industry, proximity to the job site has to be considered, then the long term implication of the industrial "boom" should be investigated.
- If housing is being provided for a particular user type (handicapped and elderly), then there should also be special services made available in the community to meet their anticipated needs.
- The long term planning and growth policies of the town must be carefully reviewed for issues such as density, location, traffic patterns, school and recreational facilities prior to approval of projects.

EXAMPLES

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. #19: Residential Site Development

PART II.F — The Site

F.
THE SITE

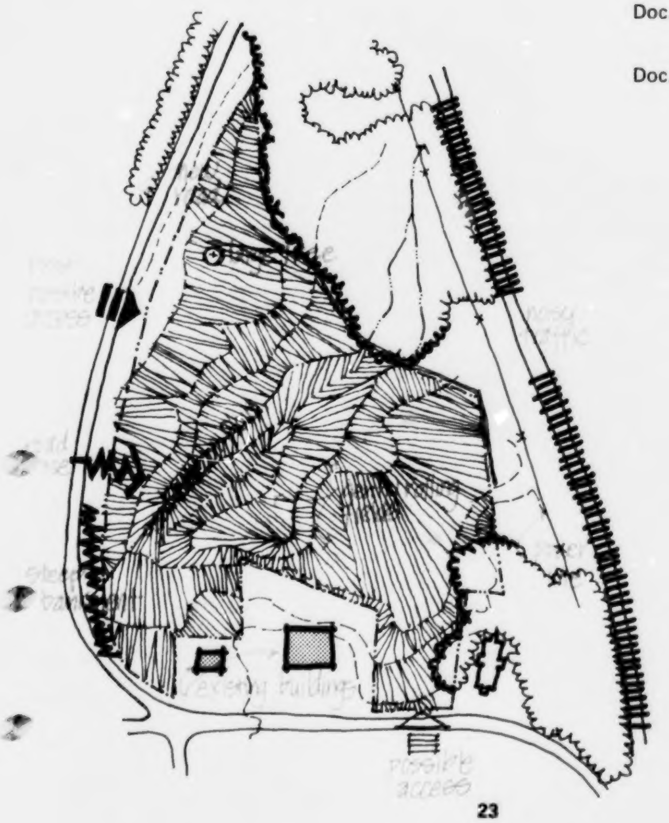
An examination of the site's physical conditions is important in that this presents the basic constraints and opportunities inherent in its development.

As a series of questions distinct from questions on site design (see Section G), this section deals with the site's existing physical conditions - topography, slope, aspect, climate, soils, vegetation, natural drainage, ground water and constraints that may affect how the project is ultimately designed.

An important concern in this part of the check list is the identification of unusual or unique circumstances that may occur on the site. It often happens that designers and owners from outside a community are unaware of situations that may be common knowledge within the community itself.

SITE CONDITIONS	QUESTIONS
F.1 (a) **TOPOGRAPHY, OPPORTUNITY AND CONSTRAINTS**	WHAT IMPACT DOES THE TOPOGRAPHY OF THE SITE HAVE UPON THE DESIGN OF THE PROJECT? • A review of existing topography relative to the site layout should be carried out in order to maximize opportunities presented by the topography. • Consideration should be given to the effects of the topography on prevailing winds, to sun exposure, snow fall accumulation, building siting and view. Consideration should also be given to steepness of slope for building foundations, walkways, roadways, site drainage and erosion. • A check should be carried out for any unusual conditions that might affect the site such as: — possible flooding of the site because of high precipitation, or the proximity of nearby streams or rivers, — adverse snow conditions, — steep ravines or cliffs that could slump or subside, — previous uses of the site (i.e., old nuisance grounds with attendant methane gas and foundation problems). — A check should be carried out on the site for special features worth retaining, such as hills, creeks or wooded areas.

EXAMPLES


possible access
noisy traffic
steep bank
existing buildings
possible access

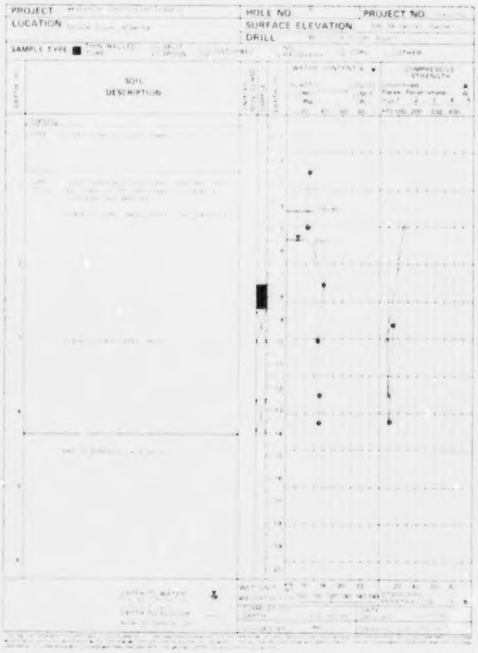
REFERENCES

Doc. #12: Site Planning Standards

Doc. #19: Residential Site Development

SITE CONDITIONS	QUESTIONS
F.1 (b) **SOIL CONDITIONS**	WHAT ARE THE SOIL CONDITIONS ON THE SITE? • Certain factors should be taken into account in determining the suitability of the site and its feasibility for development. They are: — the load bearing capacity and nature of the soil, — the depth to the water table, and — any land subsidence or sliding due to settlement of the soil, erosion or collapse of underground structure. • A soils testing program should be undertaken to identify those factors which will influence building foundation design.
F.1 (c) **EXISTING VEGETATION**	WHAT NATURAL VEGETATION EXISTS ON THE SITE? • A review of the natural vegetation that exists on the site should be undertaken so that consideration can be given to retaining existing trees and vegetation. • Professional advice should be sought to ascertain whether the trees or vegetation are worth preserving and whether they will be able to withstand the changes in the environment resulting from the development. • Retention of the existing vegetation can provide a mature landscape and decrease the need for supplementary planting.

EXAMPLES



PROJECT
HOLE NO
PROJECT NO
LOCATION
SURFACE ELEVATION
DRILL
SAMPLE TYPE ■ THIN WALLED TUBE ☐ SPLIT SPOON ☐ DISTURBED ☐ NO RECOVERY ☐ CORE ☐ OTHER

SOIL DESCRIPTION
WATER CONTENT % ●
COMPRESSIVE STRENGTH

REFERENCES

Doc. # 5: Site Planning Criteria — CMHC

Doc. #12: Planning Standards

Doc. #19: Residential Site Development

Local Engineering Department requirements

F.1(a) Topography: opportunity and constraints

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #12: Site Planning Standards

PART II.G — Site Design

SITE DESIGN

A number of aspects of site design are considered under separate headings. They are:

1. Factors Affecting Building Location Siting
2. Services
3. Density
4. Identity
5. Security and Privacy
6. Access and Circulation
7. Parking
8. Open Space and Landscaping
9. Site Amenities and Services
10. Children's Play Areas; and
11. Architectural Control.

G.1

FACTORS AFFECTING BUILDING LOCATION/SITING

To some degree this subsection is closely related to Section F on site conditions. In this instance, however, the factors are more related to the positioning of buildings in relation to site functions rather than how they should be located as dictated by site conditions.

The questions deal with:

- — building orientation to improve sun angles and limit shadow projection,
- — the resolution of site problems relating to energy usage and,
- — the correct planning of surface drainage, roads and walkways as well as private and public outdoor spaces.

In addition, questions deal with "images" created by the juxtapositioning of buildings and site functions such as views out of and into the site. It is this view of the development that has a bearing on residents' perception of the project.

BUILDING LOCATION/SITING QUESTIONS

G.1 (a)

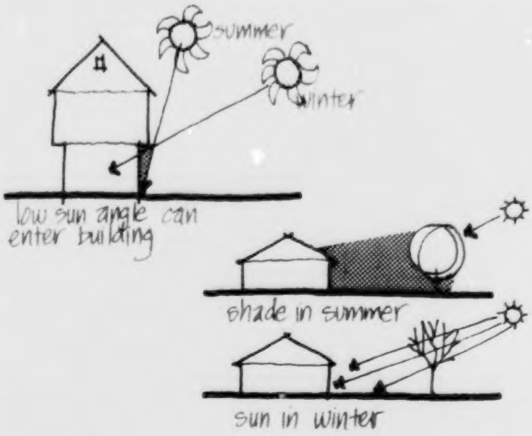
SITING OF THE UNITS, SUN ORIENTATION, SHADE AND SHADOWS, CROSS VENTILATION, AND ENERGY CONSERVATION

HAS CONSIDERATION BEEN GIVEN TO THE SITING OF THE UNITS:

- — TO TAKE ADVANTAGE OF LIGHT AND WARMTH FROM THE SUN,
- — TO AVOID BUILDINGS CASTING SHADOWS ONTO OUTDOOR LIVING AREAS AND HABITABLE WINDOWS OF OTHER BUILDINGS,
- — TO PROVIDE FOR CROSS VENTILATION, AND
- — TO TAKE ADVANTAGE OF ENERGY CONSERVATION TECHNIQUES?

- The proper location of the buildings and units on the site will enhance the liveability of the project as well as increase the buildings' and units' functional efficiency. In addition to the general climate of the area, each site has its own immediate climatic patterns governed by its exposure to the sun, exposure to prevailing winds and its own landscape and topography; thus, orientation for sun and prevailing winds merits consideration.
- Some sun should shine into each room of the unit at some time of the day. This is ideal when the sun shines into the kitchens on winter mornings and the living areas (living, family room) in the afternoon or early evening.

EXAMPLES


summer
winter
low sun angle can enter building
shade in summer
sun in winter

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #12: Site Planning Standards

Doc. #15: Builders' Guide to Energy Efficiency in New Housing — HUDAC

Doc. #19: Residential Site Development

- The siting of buildings so that one building casts shadows onto another and leaves its living areas and outdoor living area in shade for a large part of the day should be avoided.
- Buildings should be oriented to provide for natural ventilation from prevailing summer breezes.
- Landscaping and vegetation used in conjunction with building siting can protect buildings and units from cold winter winds, snow drifting as well as hot summer sun.
- A south exposure permits moderately significant heat gains from the sun, while a north exposure receives minimal radiation throughout the year. Attempts should be made to locate rooms and windows to take advantage of these energy conservation techniques.
- An east-west orientation provides the best opportunity for maximum solar exposure.
- Precautions should be taken to control the sun's heat in summer and to allow maximum benefit from it in the winter.

G.1 (b)

CONTOURS AND TOPOGRAPHY, SITING OF BUILDINGS, USE OF OPEN SPACE, ROADS AND WALKWAYS, AND SURFACE DRAINAGE

HAVE THE CONTOURS AND TOPOGRAPHY OF THE LAND BEEN USED TO:
— COMPLEMENT THE SITING OF BUILDINGS,
— LOCATE AND COMPLEMENT THE USE OF OPEN SPACE,
— FACILITATE THE LOCATION OF ROADS AND WALKWAYS, AND
— FACILITATE SURFACE DRAINAGE?

- To avoid costly construction and to make maximum use of grade variations, the site must be studied and the information used in the preparation of the project design. It would be appropriate to include topographic information on the site drawings.
- Following the contours of the land facilitates construction and determines the placement of the units, roads, sewers and service lines.
- The selection of open space areas (playgrounds and yards) should be based on surface drainage patterns as well as on the appropriate cutting and filling of slopes to achieve the proper grading of the site.
- Roads and walkways should preferably run parallel to slopes to minimize steepness and reduce the cost of cutting, filling and the construction of retaining walls.

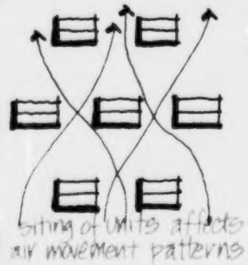
G.1 (c)

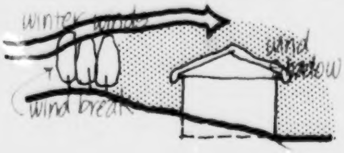
GRADIENT STANDARDS

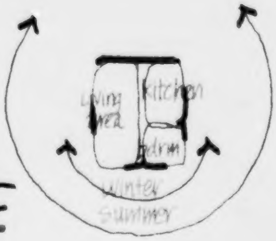
HAVE SUGGESTED GRADIENT STANDARDS SET BY THE TOWN BEEN FOLLOWED?

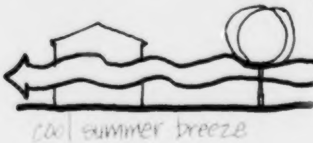
- The town should establish gradient standards for streets, driveways, walkways, parking and ground surfaces which should be met by new developments.
- The development of proper surface and subsurface drainage systems is a critical step if the system of storm water run-off is to be considered a self-contained system and if spill over onto adjacent lands is to be avoided.
- The total site area should have positive surface drainage with a minimum 2.0% grade for sod areas and a 1.0% grade on paved areas.
- Private yards should not have slopes exceeding 5%, otherwise their use may be restricted.
- Drainage swales 0.3m (1 ft.) below general grade are recommended to convey collected surface water flows to appropriately located catchbasin outlets.
- Drainage swales should be clearly defined so that they are not obstructed unintentionally.

EXAMPLES **REFERENCES**


siting of units affects
air movement patterns


winter winds
wind break
wind shadow

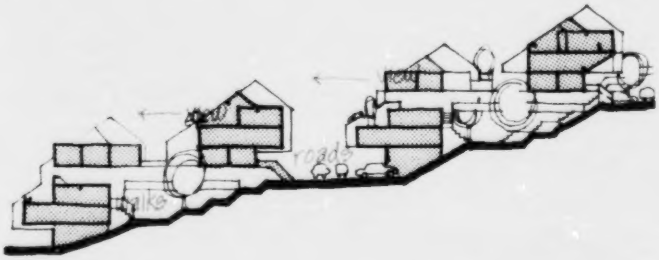

living area
kitchen
bdrm
winter
summer


cool summer breeze

Doc. # 3: Urban Planning and Design Criteria

Doc. #12: Site Planning Standards

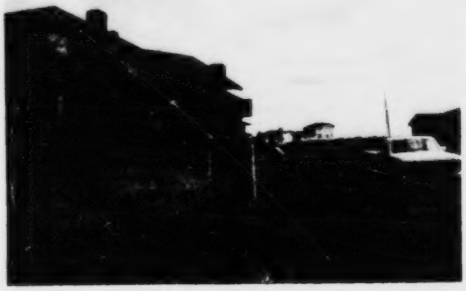
Doc. #19: Residential Site Development


view
view
roads
walks

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #12: Site Planning Standards

Doc. #19: Residential Site Development



G.1 (d)

VIEWS AND VISTAS

CAN VIEWS AND VISTAS BE ARRANGED FROM THE UNITS?

- Buildings and units should be arranged so as to provide a variety of views, both out of the units, and into the project from off the site. This assists in establishing an individual's sense of space and containment, privacy and community.
- Attempts should be made to have a range of three views:
  - a view to the private outdoor living area and landscaped area—short range,
  - a view of the neighbourhood (or project as a whole) if it is a large project—medium range,
  - a view to distant features like mountains, skyline, the prairies, forests, interesting areas—long range.
  - There should also be a variety of views in different directions from within each unit.

G.1 (e)

SCREENING AND BUFFERING, NOISE, UNATTRACTIVE VIEWS

ARE POTENTIALLY NOISY PLACES OR HIGH TRAFFIC AREAS AND UNATTRACTIVE SPACES ARRANGED OR SCREENED TO MINIMIZE THEIR EFFECT ON ADJACENT AREAS?

- Site planning techniques, building locations, building forms, and landscape features can be used to some extent to reduce the adverse effects of major noise sources such as traffic, airports, railways or industry.
- Distance or separation space can also act as a buffer.
- A building can be sited and planned to act as a noise buffer through the placement of blank walls, sealed windows and non-habitable rooms in locations where there are noise sources. Outdoor living areas, windows and sound sensitive rooms should be located on the sound shadow side of the building.
- Barriers such as fences, plantings and berms can be effective in reducing noise.
- The same techniques can be used to screen unattractive spaces, provide visual separation, act as visual barriers and direct or control specific medium or long range views where desired.

G.1 (f)

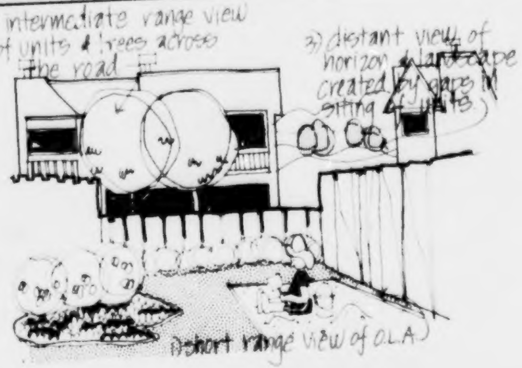
EDGE CONDITIONS

ARE DWELLINGS ON THE EDGE OF THE PROJECT PROTECTED FROM POTENTIALLY DISTURBING FACTORS OCCURRING IN THE NEIGHBOURHOOD SUCH AS ARENAS, PUBLIC PLAYING FIELDS, ROADS AND INDUSTRIES?

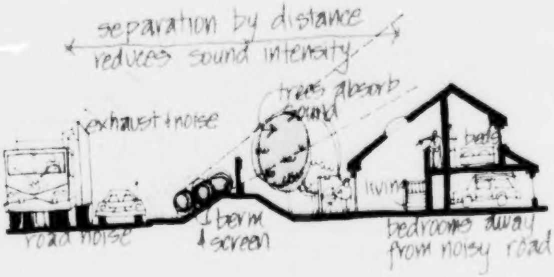
- The proper treatment of the perimeter of the site should be considered in relation to the adjacent uses such as perimeter screening, separation space, fences, berms, planting, and grade changes. The smaller the separation space, the more the screening must be well thought out.

EXAMPLES

REFERENCES


2) intermediate range view
of units & trees across
the road
3) distant view of
horizon & landscape
created by gaps in
siting of units
1) short range view of O.L.A.

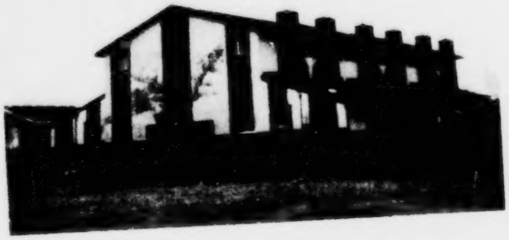
Doc. #7: Compact Housing


separation by distance
reduces sound intensity
trees absorb
sound
exhaust & noise
road noise
berm
& screen
living
beds
bedrooms away
from noisy road

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #12: Site Planning Standards

Doc. #19: Residential Site Development



Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 6: Housing Families at High Densities

Doc. # 7 Compact Housing

Doc. #19: Residential Site Development

G.2
SERVICES

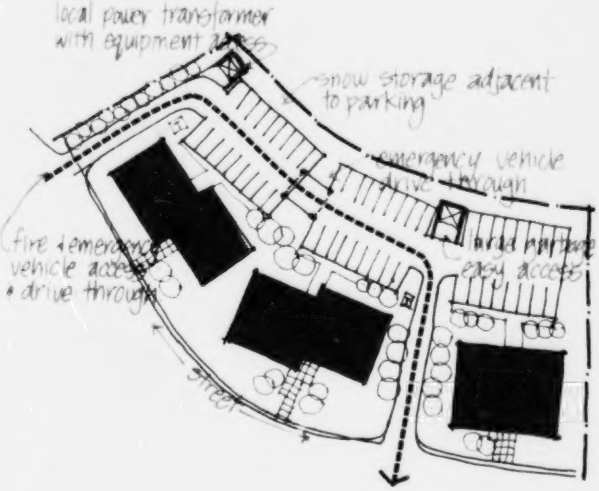
One of the fundamental concerns any developer or approving authority has is how the site can be serviced. All too often services are taken to mean water, sewer and power supplies. In fact services also include garbage disposal, snow removal, fire and police protection, school bus service, health, welfare and postal services. Services such as garbage disposal, snow removal, fire and police protection can be considered essential or emergency services.

SERVICES	QUESTIONS
G.2 (a) **PUBLIC UTILITIES, GARBAGE REMOVAL, SNOW CLEARANCE, FIRE AND POLICE, AND EMERGENCY VEHICLES**	IS THE SITE CAPABLE OF BEING SERVICED BY PUBLIC UTILITIES INCLUDING GARBAGE REMOVAL, SNOW CLEARANCE, AND FIRE AND POLICE EMERGENCY SERVICES? • the site must be capable of being serviced by public or private water supply, sanitary and storm water disposal systems, gas, electricity, garbage removal, snow clearance, fire and police services. • All sites must be serviced to a level considered appropriate for the area and approved by the authority having jurisdiction.

G.3
DENSITY

Density can be the single most important factor affecting the overall acceptability by the residents of a multi-family or medium density development. It is not density as such, but the perception of density which can affect the assessment of a development. This perception is derived from how the building forms are designed, inter-related and spaced. Along with the standard questions being asked on density, there should also be questions on design, distance separation, privacy, identity, diversity and distribution.

EXAMPLES


local power transformer with equipment access
snow storage adjacent to parking
emergency vehicle drive through
large garbage easy access
fire & emergency vehicle access & drive through
street

REFERENCES

G.6 Access and Circulation

G.9 Site Amenities and Services

Doc. #19: Residential Site Development

Land Use Bylaw Requirements

Municipal Engineering standards for utilities

Municipal vehicle types.
- garbage pickup trucks
- fire fighting equipment and trucks.

DENSITY **QUESTIONS**

G.3 (a)

REQUIRED DENSITY

WHAT IS THE DENSITY OF THE PROJECT AND DOES THIS MEET THE REQUIREMENTS AND STANDARDS SET BY THE TOWN?

- Density is measured as persons/hectare, bedrooms/hectare, units/hectare, gross floor index, or children/hectare.
- Municipalities should generally consider a density range as a guide when defining the land use of the site or neighbourhood, together with a general definition of the housing types which would be acceptable for the site or neighbourhood.
- Policies should provide sufficient flexibility to deal with market changes, to provide opportunities for using a mixture of housing types and to permit the incorporation of new ideas and concepts in the planning framework.
- It is desirable to arrange for a transition from low to higher density developments although the use of open space and separation space can assist in the design and positioning of projects of differing site densities.
- When locating higher density sites within a neighbourhood consideration should be given to:
  - proximity to public parks.
  - proximity to major collector roads, and
  - proximity to other higher density sites.

G.3 (b)

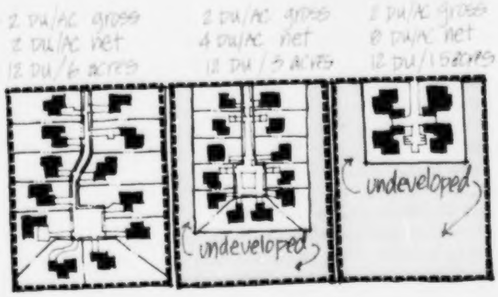
APPROPRIATE DENSITY DISTRIBUTION OF BUILDINGS ON SITE

IS THE DENSITY APPROPRIATE FOR THE TYPE OF HOUSING PROPOSED AND WILL THE DISTRIBUTION OF BUILDINGS ON THE SITE CREATE A FEELING OF CROWDING OR LACK OF PRIVACY FOR THE RESIDENTS?

- The following density ranges can be achieved with various types of medium density housing without overcrowding:
  - The lowest density range of 22 - 32 units per hectare (9 - 13 units per acre) permits various types of housing which can be held under fee simple ownership, to be located on public streets
  - The density range of 29 - 50 units per hectare (9 - 20 units per acre) makes possible ground oriented housing with private garden spaces at grade.
  - The density range of 50 - 90 units per hectare (20 - 36 units per acre) requires some or all units to have private outdoor space above grade.
- There are a number of aspects of design and layout which tend to help create a feeling of the project being less crowded and more private. They are:
  - open space on the site or across the street, outside private spaces for each unit, and adequate storage space both in each unit or within the project as a whole,
  - the presence of gardens and private entrances for each unit,
  - smaller sized projects, smaller neighbourhoods or smaller clusters of housing,
  - short rows of housing (i.e., six units),
  - variations in height, setbacks and roof lines, or
  - closed patios for each unit.
- Opportunities for the tenant to make choices as to how he/she can use or change his/her private spaces leads to more effective use of that space.

EXAMPLES

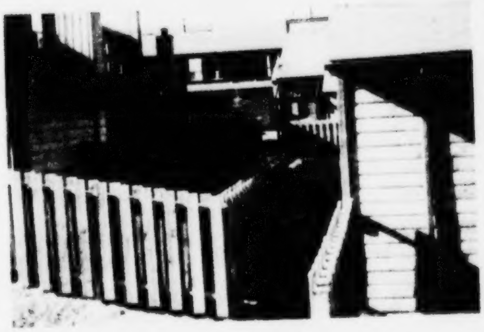
REFERENCES


2 DU/AC gross
2 DU/AC net
12 DU/6 acres
2 DU/AC gross
4 DU/AC net
12 DU/3 acres
2 DU/AC gross
8 DU/AC net
12 DU/1.5 acres
undeveloped
undeveloped

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #12: Site Planning Standards

Land Use Bylaw Requirements



G.5 — Security and Privacy.

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Densities

Land Use Bylaw requirements.

G.3 (c)

SPACE BETWEEN BUILDINGS

IS ADEQUATE SPACE BETWEEN BUILDINGS BEING PROVIDED?

- Space around residential buildings is necessary in order to achieve visual privacy, useful outdoor living spaces, and to increase the feeling of openness on the site.
- Requirements should be set which will define the minimum space between and around the buildings, such space to be functionally and visually adequate to separate buildings from adjacent activities.
- In establishing the need for separation space, the following characteristics should be taken into account:
  - — Daylight/sunlight: Open space should be provided around buildings to ensure the provision of both daylight and direct sunlight into habitable areas of each dwelling unit throughout the year. New housing should be located so as not to deprive existing dwellings and outdoor living areas of adequate sunlight and daylight.
  - — Ventilation: The space around the unit should be sufficient to permit natural ventilation of the dwelling (except for those rooms which are mechanically ventilated such as the bathroom and kitchen).
  - — Quiet: Physical separation and/or screening should be provided between the dwelling unit and adjacent users and activities to permit the occupants to enjoy rest and privacy within the dwelling unit without interference from external noise.
  - — Visual Privacy: Windows and entrances to dwelling units should be separated and/or screened from adjacent buildings and activities so as to permit privacy for the occupants.
  - — View: An open view should be provided from at least one principal room or living area of a dwelling unit.

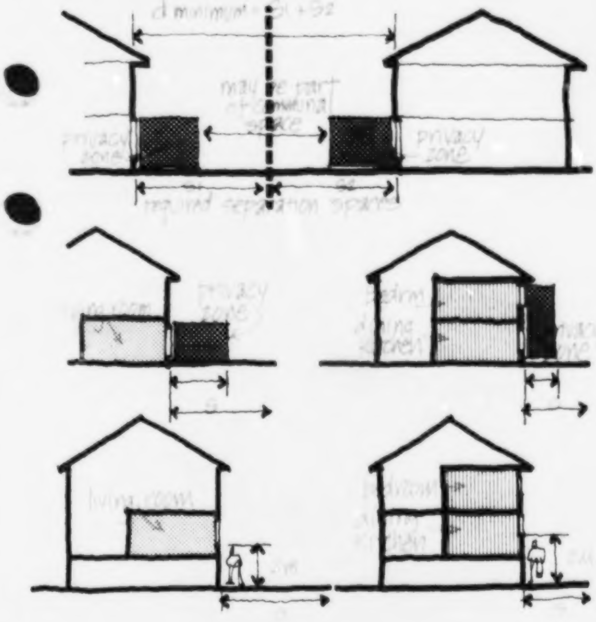
G.3(d)

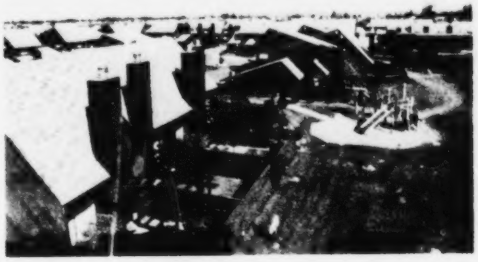
OPEN SPACE

IS THERE ADEQUATE OPEN SPACE ON THE SITE?

- The liveability of a development or a community is enhanced by the various types of outdoor open spaces which are available to the residents.
- There should be a range of size and quality of open space from the intimate outdoor living area adjacent to the unit through to the neighbourhood or area park.
- Increased densities require more emphasis on the provision of well designed, well used on-site open space, including space for active and passive recreations.

EXAMPLES


d minimum = S1 + S2
may be part of communal space
privacy zone
privacy zone
S1
S2
required separation space
living room
privacy zone
S
bedrm
dining kitchen
privacy zone
living room
2m
bedroom
dining kitchen
2m



REFERENCES

G.5 Security and Privacy

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 4: Outdoor Living Areas Advisory Document — CMHC.

Doc. # 5: Site Planning Criteria — CMHC

Doc. #19: Residential Site Development

G.8 — Open Space and Landscaping

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. #19: Residential Site Development

Land Use Bylaw Requirements

G.4
IDENTITY

One of the important concerns of the prospective purchaser or occupier is the need to identify his her home at a personal level. In addition, identity in the context of this check list recognizes the sense of community as well as the easy identification of individual units.

IDENTITY	QUESTIONS

G.4 (a)
PROJECT IDENTITY

HAS THE PROJECT A CLEAR IDENTITY?

- Project identity (while still allowing freedom of expression to the individual) leads to greater user satisfaction, pride and sense of community.
- Continuity of overall expression can be achieved by:
  - consistent orientation (to take advantage of a view, sunlight, etc.).
  - geometric shape in contrast to trees and other natural forms.
  - predominant building form - scale, mass, material, texture, colour.
- Housing groups can help establish a sense of community identity by providing a community centre, swimming pool, communal open spaces, narrow roads and paths.

G.4 (b)
SENSE OF COMMUNITY

ARE THE UNITS ARRANGED SO AS TO CREATE A SENSE OF COMMUNITY?

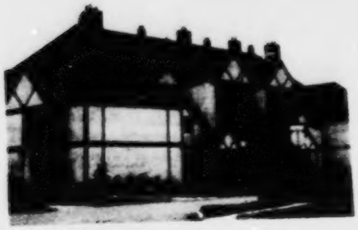
- Clustering of dwellings into recognizable groupings encourages joint use of common areas and social interaction among neighbours.
- Informal meeting locations such as lobbies, and communal areas such as playgrounds and laundry rooms assist in establishing community identity.
- The creation of spaces through the layout of units and buildings such as courtyards, garden areas and streetscapes add interest, variety and identity to the project.

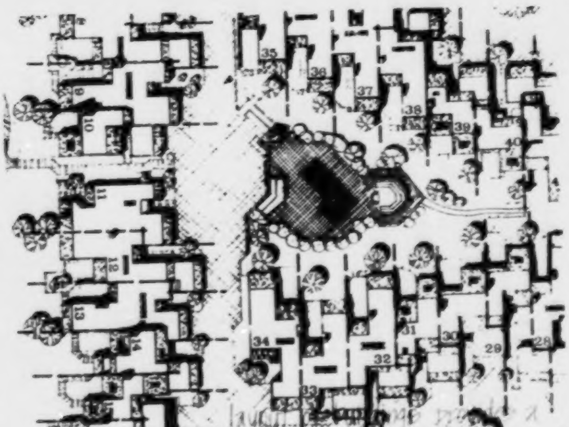
EXAMPLES

REFERENCES

Doc. # 6: Housing Families at High Densities

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing.




10
11
12
13
14
16
28
29
30
31
32
33
34
35
36
37
38
39
40

layout [illegible] provide a courtyard & pool which serves as a community focus

Doc. # 6: Housing Families at High Densities

Doc. #19: Residential Site Development

IDENTITY QUESTIONS

G.4 (c)

UNIT ENTRY IDENTITY

CAN THE MAIN ENTRY POINT TO THE UNIT (EITHER THE DOOR OR WALKWAY) BE SEEN FROM THE ACCESS STREET OR WALKWAY AND BE EASILY IDENTIFIED?

- The main entry to the unit (the door or walkway) should be easily and clearly identifiable.
- Units should have a clear, simple and easily understood addressing system.
- Streets and walkways should have easily understood labelling.
- All signs should be bold and readable from a distance.
- The identification system used should make it easy for visitors and deliverymen to find their destinations.

G.5

SECURITY AND PRIVACY

Security and privacy become important in all multiple family and medium density projects because there is:

- high public traffic and exposure,
- less individual identification of neighbours and community residents allowing for less surveillance,
- more opportunity for unwanted or undesirable visitors who can wander around the site unidentified and unchallenged,
- more interference and interaction through other residents' activities.

In the design of projects, therefore, it is important to overcome these problems or at least to lessen their impact.

SECURITY & PRIVACY QUESTIONS

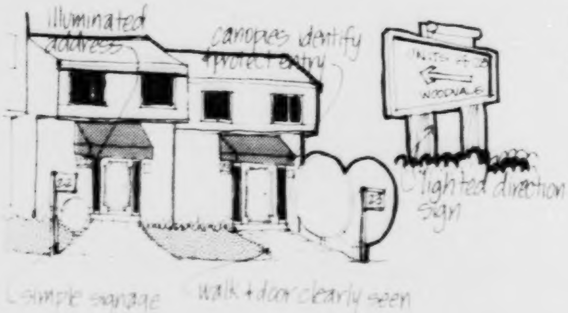
G.5(a)

NOISE AND DISTURBANCES, TRAFFIC, PARKING AREAS, PLAY AREAS, AND NEIGHBOURS

IS THE PROJECT AS WELL AS THE INDIVIDUAL DWELLING SUFFICIENTLY PROTECTED AGAINST NOISE AND DISTURBANCES FROM TRAFFIC, PARKING AREAS, PLAY AREAS AND NEIGHBOURS?

- Privacy from traffic noise, parking areas and play areas can be achieved through the provision of buffering or screening by means of fencing, vegetation, berms, grade change and orientation of units.
- Privacy from neighbours can be achieved through the staggering of units. Outdoor living areas can be made private using fences, walls or by screening, planting hedges or trees.
- Protection from noise can be achieved through appropriate separation distances.

EXAMPLES

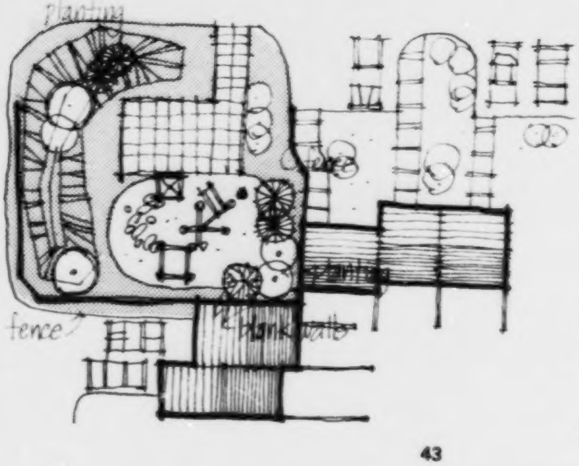

illuminated address
canopies identify + protect entry
lighted direction sign
simple signage
walk + door clearly seen

REFERENCES

Doc. # 7: Compact Housing

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

EXAMPLES


berm & planting
fence
planting
blank walls

REFERENCES

Doc. # 1: Parking Areas Advisory Document — CMHC

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 4: Outdoor Living Areas Advisory Document — CMHC

Doc. # 7: Compact housing

Doc. #12: Site Planning Standards

Doc. #19: Residential Site Development

G.5 (b)

VISUAL INTRUSION

ARE THE BUILDINGS AND THE INDIVIDUAL DWELLINGS SUFFICIENTLY PROTECTED AGAINST *VISUAL INTRUSION* FROM NEIGHBOURS, PASSERSBY, ADJACENT ROADS, AND PARKING AREAS?

- Privacy from visual intrusion operates on the principle of the smaller the separation space, the more sophisticated the screening techniques.
- To achieve appropriate levels of privacy, fences or screens, vegetation, trees, berms, grade changes, or staggering of buildings on the site can be used. Overlooking windows and balconies should be avoided.

G.5 (c)

SURVEILLANCE OF ENTRY

CAN THE OUTSIDE ENTRY BE OVERLOOKED FROM THE INTERIOR SO THAT UNEXPECTED AND UNSOLICITED VISITORS CAN BE CONTROLLED?

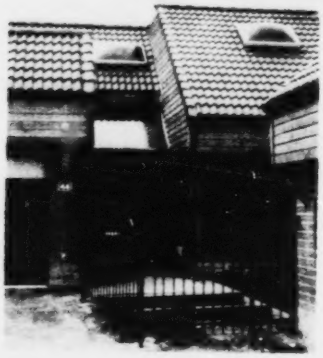
- Apartment buildings should have appropriate systems to control entry by non-residents, salesmen or visitors.
- Entry doors should have peep-holes.
- Entry doors to buildings or to individual units at grade level should be capable of being overlooked from within the building or unit, through windows, sidelites or from balconies.

G.6

ACCESS AND CIRCULATION

The purpose of reviewing access to and circulation within a project is to ensure that conflicts do not occur between the site and the local road system; that a clearly defined internal system is planned allowing for easy access to appropriate parking spaces; and that the system allows for emergency (police and fire) and special (handicapped, garbage, snow removal) services to operate with the least conflict and confusion.

EXAMPLES



REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Density

Doc. #7: Compact Housing

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

G.6 (a)

ENTRY AND EXIT LOCATION RELATIVE TO LOCAL ROAD SYSTEM

HAVE ENTRY AND EXIT LOCATIONS TO THE SITE BEEN CONSIDERED IN RELATION TO THE LOCAL ROAD SYSTEM?

- Site circulation as well as entries and exits must anticipate surrounding street movement and on- and off-site traffic generators.
- The distance of entry/exit points from existing street intersections must meet local standards and permit safe movement of traffic with a minimum number of potential traffic conflict points.
- The on-site circulation system should be integrated with the adjoining street pattern and at least two access points to the adjoining street system should be provided for emergency access.
- The layout should take advantage of existing topography and existing street elevations to provide satisfactory road gradients.

G.6 (b)

EMERGENCY ACCESS

HAS THE PROJECT BEEN DESIGNED TO PROVIDE ACCESS FOR EMERGENCY VEHICLES (POLICE, FIRE AND AMBULANCE)?

- At least two points of access to the adjoining street system should be provided for emergency vehicle access.
- Emergency vehicles should have access throughout the site.
- Emergency vehicles should be able to reach all dwellings, and access for fire department equipment should be provided to one principal face of each building.
- All dead-end streets should have ample turn around space for emergency equipment.
- All routes designed for emergency access should have surfaces designed to carry heavy fire fighting equipment and to facilitate snow removal.
- Individual buildings and dwelling units should have proper identification to enable the buildings or units to be quickly identified by emergency vehicles.

G.6 (c)

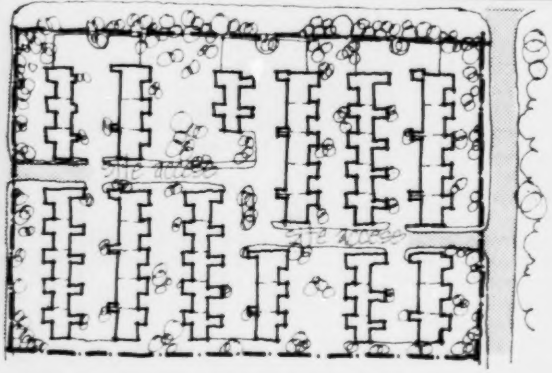
PARKING NEAR UNIT

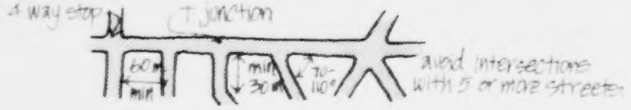
ARE PARKING AREAS CONVENIENT AND ACCESSIBLE TO DWELLING UNITS?

- Parking for each resident should be as closely and conveniently located to the dwelling as possible. The walking distance from dwelling to parking space should reflect the type of user, the need for shelter, safety and security.
- For row housing projects and those where all the units are at-grade, parking should be provided adjacent to the units if at all possible.
- For walk-up apartments and more complex housing groups, parking spaces should be provided close to the units and buildings, or in specially designed parking areas.
- The average distance between parked car and dwelling or building entrance should not exceed 45 metres. This may be increased by 30% when the walkway to the car is covered or indoors.
- Where parking is not adjacent to the unit or building, a drop-off point and "drive through" near the main entrance should be provided.

EXAMPLES

REFERENCES


site access
site access

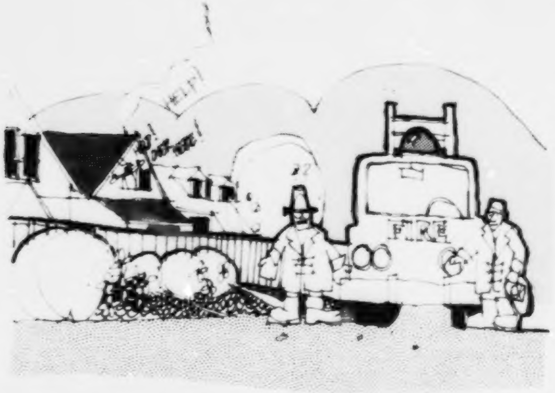

4 way stop
T junction
60 m min
min 30 m
70-110°
avoid intersections with 5 or more streets

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. #19: Residential Site Development

Land Use Bylaw Requirements

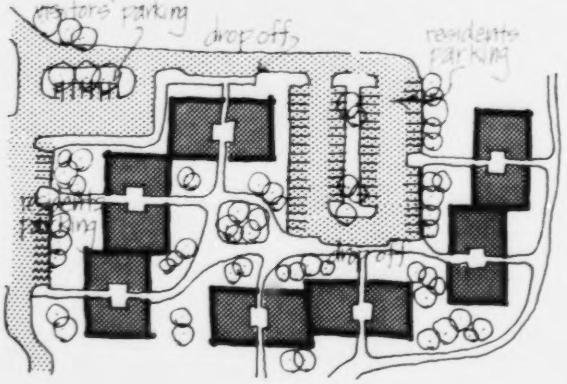


Alberta Building Code

Doc. #2: Site Planning Guidelines for Medium Density Housing

Land Use Bylaw Requirements

Fire Marshall (local)


visitors' parking
drop off
residents parking
residents parking
drop off

G.7 — Parking

Doc. #1: Parking Areas Advisory Document — CMHC

Doc. #2: Site Planning Guidelines for Medium Density Housing

G.6 (d)

CIRCULATION PATHS

HAVE CIRCULATION PATHS (ROADS AND SIDEWALKS) BEEN DESIGNED TO FACILITATE HANDICAPPED PEOPLE, SNOW CLEARANCE, AND MAINTENANCE?

- The roads and walks should be surfaced in durable, long-lasting materials that require little maintenance and upkeep.
- The roads and walks should be graded to provide good surface drainage, but should not be so steep as to make winter driving difficult.
- Space for snow storage should be provided in a well drained gravel or hard surfaced area adjacent to roads or parking areas. The area should be located where the snow piles will not obstruct site lines from pedestrians and vehicles, and will not damage planting or create drainage problems.
- Curbs are preferred when defining roads and parking areas.
- The surfaces of walks should reflect anticipated use by people in wheelchairs, children on tricycles, and mothers pushing strollers.
- The approaches to a building should allow for a handicapped person to be "dropped off".
- A sheltered parking area should be provided for handicapped drivers. As an alternative, a covered route between the dwelling and the parking stall used by a handicapped person should be provided.
- Roads and paths should satisfy recommended grades for easy walking, driving, wheelchair access, strollers and bicycles.
- Widths of walks and roads should be suitable for their use and allow for maintenance and emergency vehicles to maneuver easily.

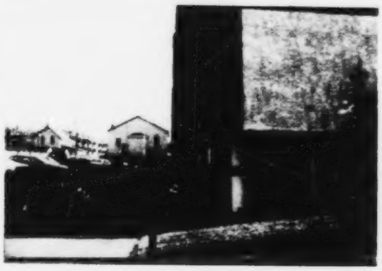
G.6 (e)

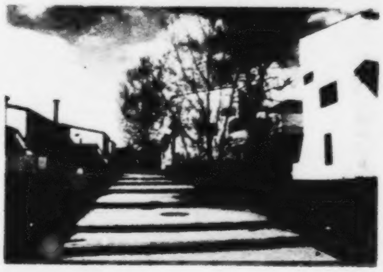
UNIT IDENTIFICATION, LOCATING UNITS

ARE DIRECTIONS TO LOCATE UNITS CLEAR, ADEQUATE AND NOT MISLEADING?

- Individual buildings and dwelling units should be capable of being quickly and easily identified.
- Access points and paths to the site and to groups of dwelling units should be clearly marked and well lit.
- Confusing street and driveway layouts should be avoided. The naming of on-site roads and driveways may be of assistance.
- Units and buildings should be numbered in a clear manner and be easily recognized.
- Graphics used on signage should be clear and easily readable.
- Visibility of addresses, signage, directories and unit numbers should be considered from the viewpoint of a driver in a moving vehicle.
- A clear, easily readable project sign and project map on larger projects should be provided.

EXAMPLES





REFERENCES

Doc. # 1: Parking Areas Advisory Document — CMHC

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 3: Urban Planning and Design Criteria

Doc. #12: Site Planning Standards

Doc. #13: Housing the Handicapped

G4 — Identity

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Densities

G.7
PARKING

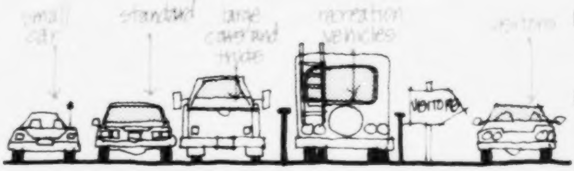
Almost every multiple family housing project has problems associated with parking. Generally, they range from an inadequate number of stalls, distance to the units, visual appearance, misuse of the area for car repairs, storage of additional vehicles, poor designation resulting in parking in non-parking areas, visitor parking in non-designated areas and other similar problems. Most frequently, the parking spaces, while designated on the plan, are not developed to complete the project. As a result, parking areas can be the single biggest contributor to the poor visual appearance and resulting perception the public has of multiple family developments.

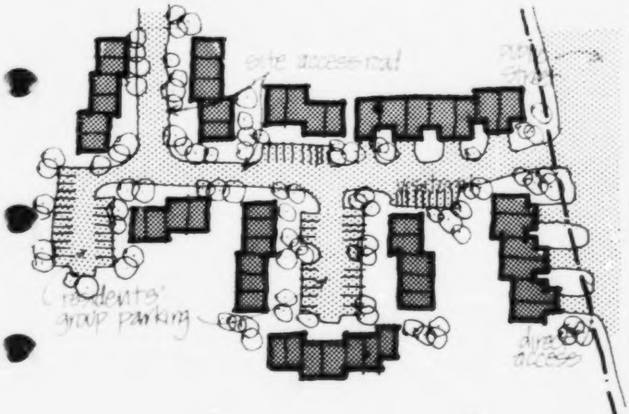
The provision of adequate, well located and designed parking areas can do much to improve the overall appearance of a project when completed. Projects that have no designed systems that organize and control parking location and distribution usually present many unsightly and difficult site situations when the projects are occupied.

The parking of recreation vehicles, additional automobiles, boats and trailers should be considered when determining if the parking areas provided are adequate.

PARKING	QUESTIONS
G.7 (a) **STALL SIZE, STALL QUANTITY, AND VISITOR PARKING**	IS THERE AN ADEQUATE AMOUNT OF PARKING PROVIDED FOR COMPANY VEHICLES, RESIDENTS, RECREATION VEHICLES AND VISITORS? • Size and type of stalls must reflect size and type of vehicles which will be parked. • Number of stalls must conform to any land use bylaw and take into account a number of vehicles for each resident or unit. • Visitor stalls should be clearly identified and reserved with signs and should be uniformly distributed around the site convenient to building entries.
G.7 (b) **ACCESS TO PUBLIC ROADS**	ARE ACCESS POINTS TO PARKING AREAS FROM PUBLIC ROADS ACCEPTABLE? • Access to parking should be easy to find from the external street system. • Access points should not conflict with public road intersections. • Exit points should allow for safe entry into street traffic. • The access should "read" like a private road to discourage its use by the general public. • There should be clear site lines for entering and exiting a site.

EXAMPLES


small car
standard
large camper and trucks
recreation vehicles
VISITORS
visitors


site access road
public street
residents' group parking
direct access

REFERENCES

Doc. #1: Parking Areas Advisory Document — CMHC

Doc. #2: Site Planning Guidelines for Medium Density Housing

Land Use Bylaw Requirements

G.6 — Access & Circulation

Doc. # 1: Parking Areas Advisory Document — CMHC

Doc.#19: Residential Site Development

Local Traffic Engineering Requirements

G.7 (c)

CONVENIENT LOCATION

IS PARKING CONVENIENTLY LOCATED WITHIN THE PROJECT?

- Parking should be located close to each unit or front entry point to facilitate easy loading and unloading and to eliminate long walks.
- There should be a "drop-off" or "pick-up" point in front of the main entrance of any apartment building.
- Access to remotely located parking facilities should be sheltered from weather.
- The walking distance from a dwelling to a parking space should be determined by the type of user and the need for shelter, safety and security.
- Visitor parking spaces should be located so that they can be easily identified upon entry to the site and so that there is minimum misuse of assigned visitor spaces by residents.

G.7 (d)

SEPARATION SPACE, AND SCREENING

IS THERE ADEQUATE SEPARATION SPACE OR SCREENING BETWEEN PARKING AREAS AND OUTDOOR LIVING AREAS AND HABITABLE ROOMS IN ANY UNITS?

- Adequate separation space should be provided between habitable rooms, outdoor living areas and parked cars to:
  - reduce the effects of noise and exhaust fumes,
  - minimize headlight glare into rooms,
  - screen outdoor living areas from grouped parking, and
  - screen parking at each dwelling from neighbouring outdoor living areas.

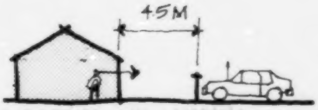
G.7 (e)

RELATIONSHIPS TO PLAY AREAS

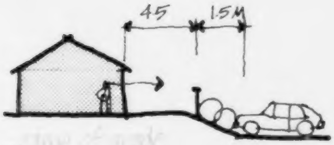
IS VEHICULAR TRAFFIC CONTROLLED OR RESTRICTED IN AREAS ADJACENT TO PLAY SPACES?

- Paved hard surface parking areas attract children, resulting in a dangerous conflict with moving cars. The possibility of damage to vehicles from balls and sticks also exists; therefore, there should be some restriction and control over vehicular movement in areas adjacent to where children may be playing.
- A barrier should be provided around play areas adjacent to parking and to access and circulation routes, or alternative attractive play areas should be located away from traffic and parking areas.

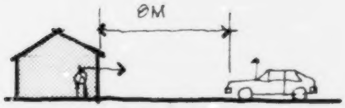
EXAMPLES



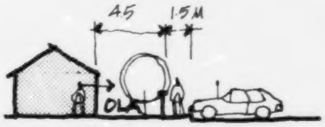
separation with screening



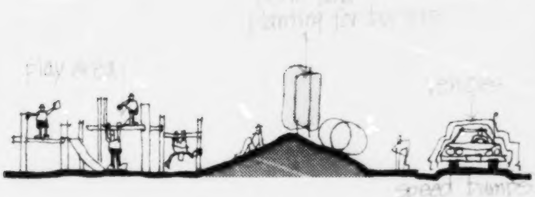
change of grade



separation by distance



separation from OLA


berm and
planting for buffer
play area
fences
speed bumps

REFERENCES

Doc. #1: Parking Areas Advisory Document — CMHC

Doc. #1: Parking Areas Advisory Document — CMHC

Doc. #4: Outdoor Living Areas Advisory Document — CMHC

Doc. #1: Parking Areas Advisory Document — CMHC

G.7 (f)

SERVICE AREAS

IS THE PARKING AREA LOCATED SO AS NOT TO INTERFERE WITH SERVICE AREAS AND THE MANEUVERING OF SERVICE VEHICLES?

- Conflicts should not occur between parking and service areas.
- The functional separation between service areas and parking areas should be achieved where possible.
- Garbage collection areas should be screened from view.
- Where service areas and parking areas must be combined, long and difficult back-up movements through the parking area should be avoided. A separate turn around area should be provided.
- Service areas should be planned so they do not block access to parking.
- Areas for snow storage or room for snow clearing equipment to maneuver should be provided.
- Curbs or wheel stops should be located to define the parking area and protect landscaping, plug-ins and other built-in features from badly parked vehicles and the operation of maintenance equipment.

G.7 (g)

SAFETY AND SECURITY

IS THE PARKING AREA WELL LIT AND DESIGNED TO ALLOW FOR CASUAL SURVEILLANCE BY RESIDENTS? IS THE PARKING AREA SAFE FROM VANDALISM?

- Vandalism and personal assault are concerns for residents in grouped parking areas. Safety and security can be improved by maximizing surveillance by residents and controlling access by non-residents.
- Parking areas and the walkways to them should be well lit and visible from adjacent housing.
- Surveillance and supervision of parking areas can be improved by grouping small parking lots directly related to the dwellings they serve.

G.7 (h)

CAR MAINTENANCE

HAS A SPECIFIC PARKING SPACE BEEN PROVIDED WHERE MINOR REPAIRS AND MAINTENANCE CAN BE UNDERTAKEN?

- Residents should have access to at least one parking space (3m x 6m) where minor car repairs and maintenance can be undertaken. This space should be provided with keyed electrical and water outlets, good lighting and drainage, and should be screened from adjacent uses.

G.7 (i)

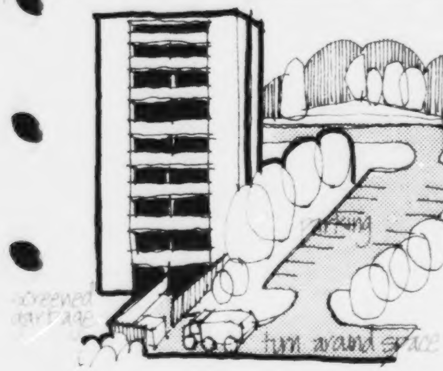
ON-STREET PARKING

ARE EXISTING STREETS WIDE ENOUGH FOR ON-STREET PARKING?

- On-street parking can be considered when:
  - there is no major parking deficiency in the area,
  - the street design is wide enough to accommodate both through traffic and parking, and
  - when approval is given by the Development Officer.
  - On-street parking is more applicable to visitor parking.
  - An increase in street width could be requested if on-street parking for visitors is needed.

EXAMPLES

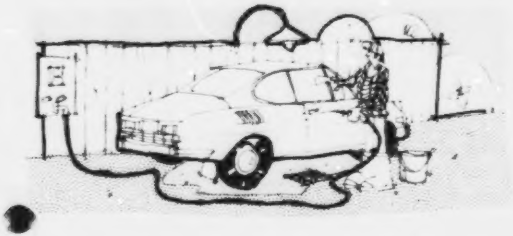
REFERENCES


parking
screened garbage
turn around space

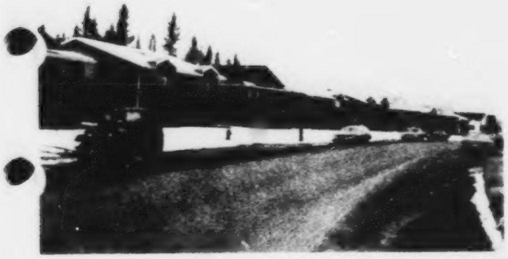
Doc. #1: Parking Areas Advisory Document - CMHC

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #1: Parking Areas Advisory Document — CMHC



Doc. #1: Parking Areas Advisory Document — CMHC



Doc. #1: Parking Areas Advisory Document — CMHC

Doc. #19: Residential Site Development

G.8
OPEN SPACE AND LANDSCAPING

In terms of open space, the reference to "public" and "private" should be clarified.

— "Public" in this instance refers to areas which all site residents can use.

— "Private" refers to areas set aside for the use of residents of one particular unit, generally designated as outdoor living areas.

The completion of the landscaping design is an important element in the visual appearance of any project. Two aspects exist. The first is the design and functional use of the space and the second is the landscape treatment of the open space.

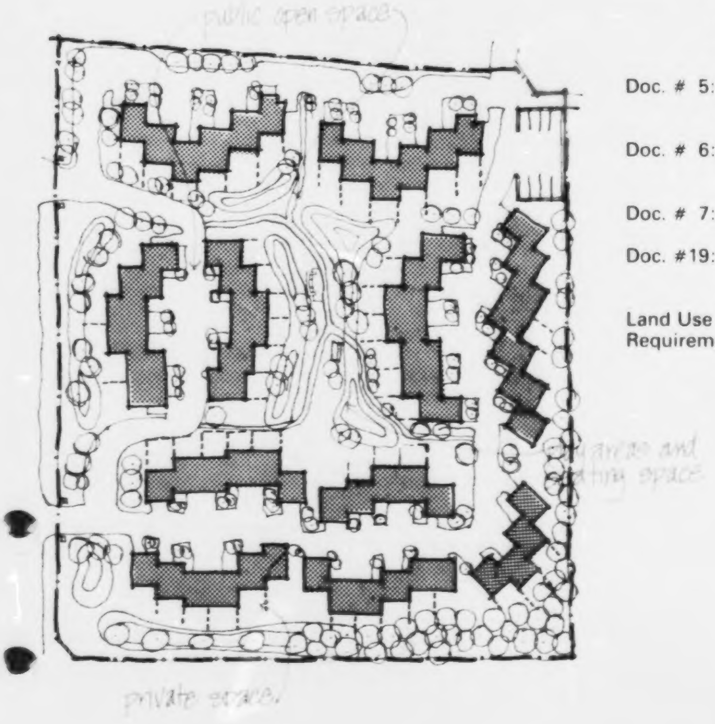
OPEN SPACE & LANDSCAPING QUESTIONS

G.8 (a)
AREA REQUIRED, PUBLIC AND PRIVATE SPACES, PUBLIC AND PRIVATE ACTIVITIES, ACTIVE AND PASSIVE USES

HAS A SUITABLE AREA BEEN SET ASIDE FOR PUBLIC OPEN SPACE? DOES THIS AREA ALLOW FOR "PUBLIC" AND "PRIVATE" ACTIVITIES AND SPACES, AND FOR PASSIVE AS WELL AS ACTIVE USES?

- Public open space is essential for the physical, social and cultural well-being of the residents.
- The area generally required should be based on a percentage of the total site area, or on a ratio to the total resident population of the project.
- "Open space" covers a variety of spaces such as open parks, walkways and playgrounds. It also relates to a variety of users such as groups, individuals, young and old persons. Spaces should therefore be planned in a proper relationship to each other, the dwellings and the whole project.

EXAMPLES


public open space
areas and
sitting space
private space

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. # 6: Housing Families at High Densities

Doc. # 7: Compact Housing

Doc. #19: Residential Site Development

Land Use ByLaw Requirements

G.8 (b)

CASUAL SURVEILLANCE, SAFE AND SECURE ENVIRONMENT, AND SUN EXPOSURE

DOES THE LOCATION OF OPEN SPACE:
— ALLOW FOR CASUAL SURVEILLANCE BY PROJECT RESIDENTS,
— PROVIDE A SAFE AND SECURE ENVIRONMENT, AND
— ALLOW FOR MAXIMUM SUN EXPOSURE?

- The location of open space and circulation paths should allow for casual surveillance from the units.
- Open space should be located in areas where the relationship to adjacent uses will provide for a safe and secure environment, such environment to be enhanced by:
  - casual surveillance,
  - self policing,
  - having play areas away from roads and parking,
  - fencing, screening or berming for control as required,
  - integration of outdoor and street furniture into the site,
  - using finishes and materials that are strong and durable and free of hazards, and
  - discouraging access to the site by outsiders.
  - Areas should be located so as to receive maximum sun exposure as well as to provide shady areas at various times of the day or year.

G.8 (c)

LANDSCAPE PLANS

HAS A LANDSCAPE PLAN BEEN PREPARED FOR THE SITE?

- A landscape plan should be prepared for each project (preferably by a landscape architect).
- The plan should show the materials of the various hard and soft ground surfaces, fencing and landscape screening, methods of handling grade changes, location type and size of plant materials to be used, grading and contours.
- Existing vegetation, topography, soil and drainage characteristics of the site should be considered in the development of a plan.
- Landscape treatment of the streets, private outdoor living areas, and the communal spaces will determine how effectively the site can be used and how attractive the development will be both to the users and to the community.
- A landscaping bond from the developer should be considered in order to ensure that the landscaping plan is completed as planned. Local materials and services should be used if possible.

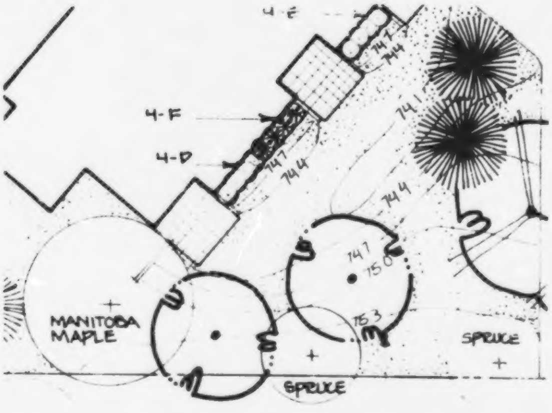
G.8 (d)

NATURAL FEATURES

HAVE THE NATURAL FEATURES OF THE SITE BEEN ADEQUATELY CONSIDERED IN THE LANDSCAPING PLAN?

- The existing natural features of the site such as topography, vegetation, soil and drainage characteristics should be evaluated as part of the landscape plan for the project.
- Valuable natural features such as trees, wooded areas, rock outcrops, ravines, creeks and hilly promontories should be retained.
- Slopes should be utilized for drainage, siting of buildings and play areas.
- Retaining existing trees, vegetation and natural areas provides opportunities for climatic control, screening and noise buffering.
- It is important to obtain professional advice to ascertain whether the trees are worth preserving and whether they will be able to withstand changes in the environment resulting from development.

EXAMPLES


4-E
4-F
4-D
747
744
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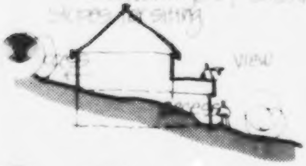
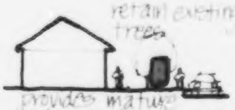
744
744
747
750
753
MANITOBA MAPLE
SPRUCE
SPRUCE

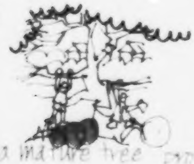
take advantage of existing slopes for siting


trees
view
trees

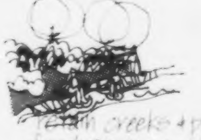


retain existing trees

provides mature landscape & screening



a mature tree provides shade & makes a great play area



retain creeks & ponds for drainage & site amenities

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. # 6: Housing Families at High Densities

Doc. # 7: Compact Housing

Doc. #19: Residential Site Development

Doc. # 2: Site Planning Guidelines for Medium Density Housing.

Doc. #3: Urban Planning and Design Criteria.

Doc. #12: Site Planning Standards

Land Use Bylaw Requirements

Doc. # 2: Site Planning Guidelines for Medium Density Housing.

Doc. # 8: Play Opportunities for School-Age Children 6-14 years of age — CMHC Advisory Document

Doc. #12: Site Planning Standards

G.8 (e)

SITE PERIMETER

HAS THE PERIMETER OF THE SITE BEEN PROPERLY LANDSCAPED IN RELATION TO THE ADJACENT USES?

- The landscape treatment of the perimeter of the site should be designed with the adjacent uses in mind.
- The landscape treatment should satisfy the degree of closure or openness desired when the adjacent use is a similar housing project, single family development, an arterial road, or park.
- Appropriate fencing, planting, grade changes, heights and density of screening should be considered in order to enhance the surroundings or to block unsightly surroundings from view.

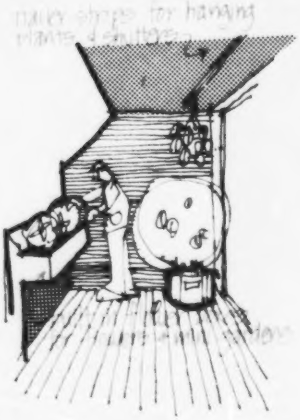
G.8 (f)

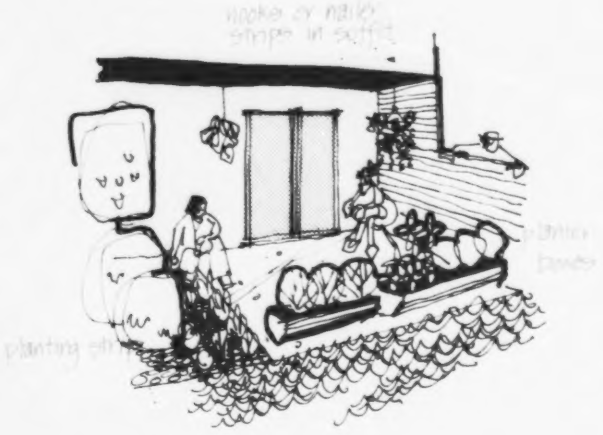
RESIDENTS' CONTRIBUTION AND PARTICIPATION

ARE RESIDENTS ABLE TO CONTRIBUTE TO THE LANDSCAPING AND PLANTING OF THE PROJECT?

- An opportunity for residents to grow plants or landscape their private outdoor living areas should be provided through the provision of garden space, planter boxes, or planting strips.
- Semi-private space adjacent to a cluster of buildings could be used by residents for planting flowers, or gardening.
- Recessed nailing strips and hooks on soffits, overhangs or balconies could allow residents to hang plants and trellises or fencing around outdoor living areas and could provide additional areas for residents to improve their garden environment.

EXAMPLES


nailer strips for hanging
plants & shutters


hooks or nailer
strips in soffit
planter
boxes
planting strip

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. #12: Site Planning Standards

Doc. #19: Residential Site Development

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #4: Outdoor Living Areas Advisory Document — CMHC

G.9

SITE AMENITIES AND SERVICES

The provision of common amenities and services, particularly in larger projects tends to enhance the liveability of a project. Private homes usually allow some space for a workshop and for the pursuit of hobbies and it is important, therefore, to consider the provision of such areas for the common use of all residents.

The provision of services such as central refuse pick-up, landscaping maintenance, playground maintenance and snow removal are more often found on larger projects. However, it is equally important that they be dealt with on small projects.

SITE AMENITIES & SERVICES QUESTIONS

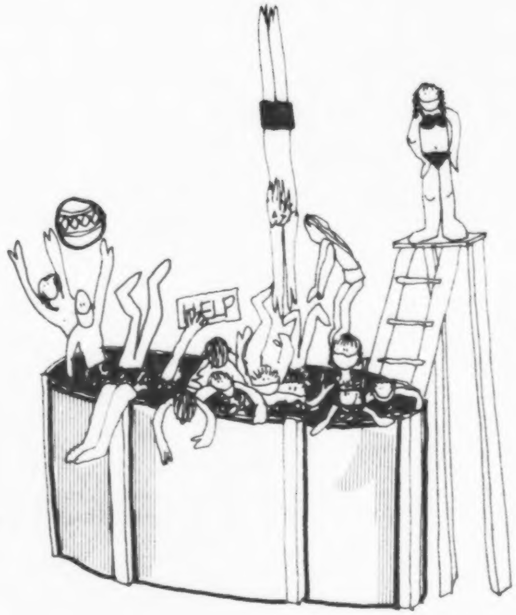
G.9 (a)

ACTIVITY PLACES, PARTY/MEETING ROOM

ARE THERE PLACES WHERE INDIVIDUAL RESIDENTS IN THE PROJECT CAN INITIATE AND ORGANIZE PRIVATE OR RESIDENT ACTIVITIES AND ACCOMMODATE GROUPS FOR FORMAL OR INFORMAL MEETINGS?

- Community amenities and services add an important dimension to the liveability of a project. Thus, depending on the size of the project, there could be common areas and facilities such as:
  - — equipped pre-school play areas,
  - — communal room(s) for meetings, parties, hobbies, classes, or movies,
  - — communal storage areas,
  - — laundry areas,
  - — place for auto repairs, woodworking or other hobbies, or
  - — party or meeting room that can accommodate approximately 40% of the adult residents. These should be located with safety, security, access and adjacent uses in mind.
  - — Common areas such as outdoor open spaces, parking lots, street ends are appropriate for other activities.

EXAMPLES



REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

G.9 (b)

MAINTENANCE EQUIPMENT

HAS ADEQUATE PROVISION BEEN MADE FOR REFUSE AND MAINTENANCE EQUIPMENT STORAGE?

- The facilities required for refuse collection and storage of maintenance equipment vary with the size and type of a project.
- For street related housing where garbage pick-up is at the street, little provision is necessary, except to adequately screen the area. For larger projects, however, where collection points are to be centralized, large bins or rooms may be required.
- Garbage collection areas should be within 30m of the unit.
- Garbage bins and "pick-up" locations should allow for convenient access and should be paved and screened from view. Doors should be airtight, childproof and sound insulated when located within the project.
- Storage space for lawn mowers, snow plows and other maintenance equipment should be incorporated into the project either in the units or in a communal storage area.

G.9 (c)

BIKE STORAGE, EQUIPMENT STORAGE

HAS BICYCLE STORAGE BEEN PROVIDED?

- The provision of bicycle storage should be made at or near the dwelling units - with convenient access to the street or bike path. This storage is best at grade.
- Storage in a unit or on a communal basis should be provided for other seasonal equipment such as tricycles, sleighs, barbeques, wading pools and gardening equipment.
- Storage areas should:
  - — relate to the units they serve,
  - — be secure, and
  - — have good connection to vehicular access, elevators, stairs (if not at grade), and maintenance areas or workshops if these are provided.

EXAMPLES	REFERENCES
	Doc. #2: Site Planning Guidelines for Medium Density Housing Doc. #6: Housing Families at High Densities Doc. #7: Compact Housing
	Doc. #5: Site Planning Criteria — CMHC Doc. #6: Housing Families at High Densities

G.10
CHILDREN'S PLAY AREAS

The provision of children's play areas in multiple family housing projects is essential if the project contains family accommodations. Specific concerns should be addressed such as safety, supervision and adequacy. But other issues such as location, the control or buffering of noise, the type of play equipment provided, the anticipated age range of children, and the type of surface finishes all need to be addressed if a play area is to be attractive and usable by children.

PLAY AREAS **QUESTIONS**

G.10 (a)
PLANNING FOR PLAY

DOES THE SITE PLANNING OF THE PROJECT TAKE INTO ACCOUNT THAT THE WHOLE SITE WILL BECOME A PLAY AREA FOR CHILDREN?

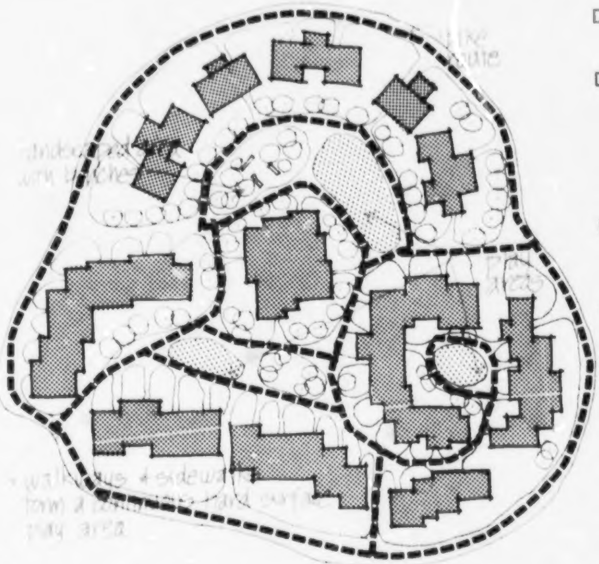
- Children's play is spontaneous and unorganized - they play where it is convenient or where the action is, thus, a wide range of play activities and locations should be provided. The proper location of play areas will ensure their frequent use. It is important to consider the relationship of play activities to other components of the site design such as roads, parking areas, walkways, dwelling units and other communal facilities.
- Walkways, sidewalks and playgrounds should be linked to form a continuous hard surface for bicycling, running, wheeling toys and other children's activities.
- Streets will undoubtedly be used for play and should therefore be made as safe as possible. Traffic interaction should be minimized.
- Structured play spaces should accommodate different age groups of children.
- The key to good play space is SAFETY, SUPERVISION and ADEQUACY.
- Play areas should be buffered or protected from vehicular circulation and should be buffered to keep noise from disturbing nearby residents.
- The whole development should be a natural, attractive and safe play environment.

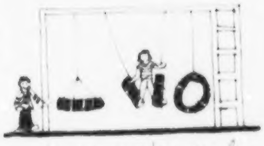
G.10 (b)
VARIETY OF SAFE PLAY AREAS, RANGE OF AGE-GROUPS OF CHILDREN

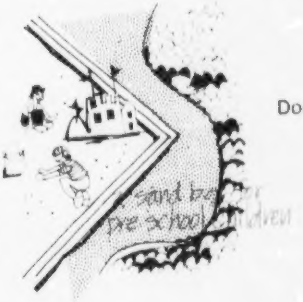
HAS A WIDE VARIETY OF SAFE PLAY AREAS AND SURFACES BEEN PROVIDED TO ACCOMMODATE THE WIDE RANGE OF ACTIVITIES AND INTERESTS OF CHILDREN?

- Play spaces should be provided to accommodate the play needs of children of different age groups.
  Pre-school play areas should:
  — be parent oriented play areas close to home,
  — have simple equipment,
  — be located to receive sunlight,
  — be sheltered for at least 1/4 of the area,
  — have a ground cover that dries fast after rain,
  — be within 10 m of a unit,
  — be separated from vehicular traffic,
  — be overviewed from as many dwelling units as possible,
  — be small, creative, intimate in scale with areas for physical and quiet play, and
  — have low enclosures to keep toddlers from wandering away.

EXAMPLES


bike route
outdoor seating with benches
play areas
walkways & sidewalks form a continuous hard surface play area


tires can be used for swings


sand box for pre school children

REFERENCES

Doc. # 6: Housing Families at High Densities

Doc. # 8: Play Opportunities for School-age Children 6-14 years of Age — CMHC Advisory Document

Doc. # 9: Play spaces for Pre-Schoolers — CMHC

Doc. #10: Creative Playground Information Kit — CMHC

Doc. #11: Adventure Playground Information Kit — CMHC

Land Use Bylaw Requirements

Doc. # 8: Play Opportunities for School-age Children 6-14 Years of Age — CMHC

Doc. # 9: Play spaces for Pre-Schoolers — CMHC

School Age play areas should:
- allow for more independence, but still be fairly close to home,
- be within 300m of the unit and open to view and surveillance from passersby or from adjacent units,
- have larger spaces with more challenging equipment for creative play,
- be well lit,
- have open spaces for ball games,
- have sunlight exposure, and
- not be close to vehicle traffic routes and areas.

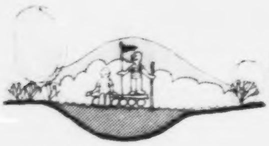
G.10 (c)
ADEQUACY

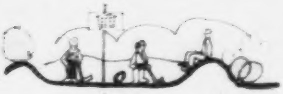
HAS ADEQUATE PLAY AREA BEEN PROVIDED BASED ON THE LIKELY NUMBER OF CHILDREN LIVING IN THE PROJECT?
- Recommendations suggested by Canada Mortgage and Housing Corporation are that:
  - in developments of over 20 family units (2 bedrooms or more per unit), appropriately located, designed and landscaped play spaces should be provided for pre-school and school-age children.
  - a minimum of 2.5m^2 play space per child's bedroom be provided.
  - for pre-school play areas the area should be large enough to accommodate a variety of play activities, and should provide a place for adults to sit in a landscaped setting, yet maintain a scale and quality which relate to the age and abilities of a preschooler.
  - for school-age play, the areas should have special equipment and more space allowing for a greater variety of play ideas not normally found with pre-schoolers.

G.10 (d)
WINTER USE

HAS WINTER USE OF THE SITE BEEN CONSIDERED?
- Proper orientation for winter sun exposure will allow play areas and climbing structures to be used by children on mild fall and winter days.
- Ponds or paved areas should be designed so that they can be flooded and frozen for skating, jam-pail curling, ditchball or other winter games.
- Snow from parking lots and walkways can be piled up for tobogganing and climbing.
- Steeply sloping areas and earth mounds allow for winter use (tobogganing) although care should be exercised when locating these adjacent to parking lots and surrounding streets.

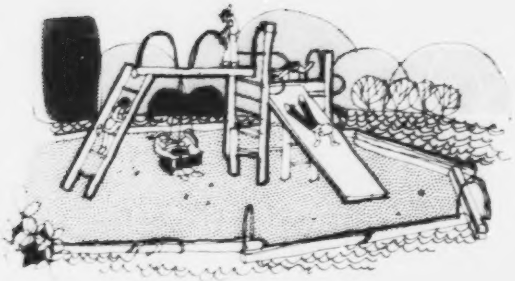
EXAMPLES **REFERENCES**


ponds or creeks are fun for school-age children


paved areas with berms around provide containment and landscaping

Doc. #10: Creative Playground Information Kit — CMHC

Doc. #11: Adventure Playground Information Kit — CMHC

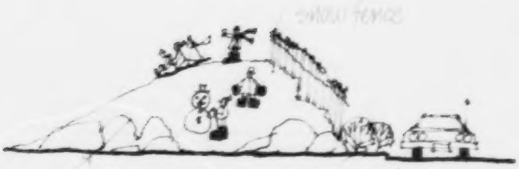


Doc. # 8: Play Opportunities for School-age Children 6-14 years of Age — CMHC

Doc. # 9: Play Spaces for Pre-Schoolers — CMHC

Doc. #10: Creative Playground Information Kit — CMHC

Doc. #11: Adventure Playground Information Kit — CMHC



Doc. #6: Housing Families at High Densities

Doc. #8: Play Opportunities for School-age Children 6-14 Years of Age — CMHC

Doc. #9: Play Spaces for Pre-Schoolers — CMHC

G.10 (e)

SUPERVISION OF PLAY AREAS

CAN CHILDREN'S PLAY AREAS BE SUPERVISED BY ADULTS FROM THE ADJACENT DWELLINGS AND BY THE CASUAL OBSERVER?

- Play areas should be located so as to allow for supervision from as many of the dwelling units as possible.
- Play areas should be located along paths or walkways to allow for casual surveillance by the passersby.

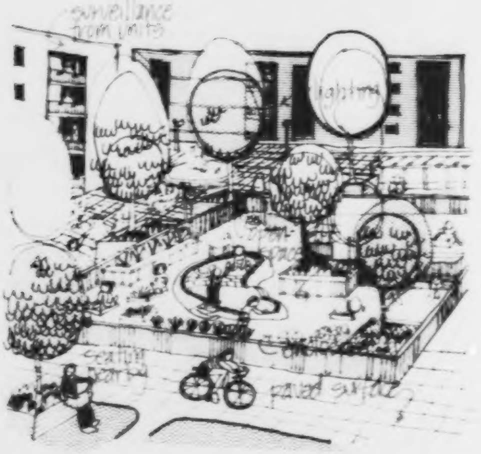
G.10 (f)

SAFETY

ARE THE PLAY AREAS SAFE?

- There should be a separation between pre-school play areas and older children's play areas so as to prevent accidents.
- Play areas should be separated and buffered from vehicular circulation areas.
- Low enclosures should be provided around pre-school play areas to keep toddlers from wandering away.
- Play equipment suitable for generally unsupervised play and for the user's age group should be provided.
- Casual surveillance of play areas from units and walkways should be allowed for.
- Adequate lighting of play spaces should be provided.
- Play areas should be kept free of semi-enclosed spaces or sheds.

EXAMPLES


surveillance from units
lighting
open space
seating areas
paved surface

REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

Doc. #6: Housing Families at High Densities

Doc. #8: Play Opportunities for School-Age Children 6-14 Years of Age — CMHC

Doc. #9: Play Spaces for Pre-Schoolers — CMHC

Doc. #2: Site Planning Guidelines for Medium Density Housing.

Doc. #8: Play Opportunities for School-age Children 6-14 Years of Age — CMHC Advisory Document

Doc. #9: Play Spaces for Pre-Schoolers — CMHC

G.11
ARCHITECTURAL CONTROL

An important aspect of design is the overall visual image presented by a project. Good architectural control can enhance this image. Features of the control should be the way in which scale, form, texture and colour are used within the project, and how the project relates in appearance to adjacent developments.

ARCHITECTURAL CONTROL QUESTIONS

G.11 (a)
CONTINUITY AND CONSISTENCY

IS THERE CONTINUITY AND CONSISTENCY TO THE OVERALL ARCHITECTURAL EXPRESSION OF THE PROJECT?

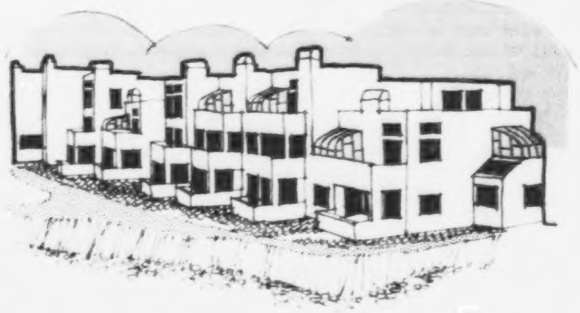
- Medium Density housing should be attractive while adding interest and variety to the larger community.
- The project should be designed to reflect overall architectural consistency.
- The overall architectural design of a project should reflect its "sense of community" through the use of design features, while at the same time allowing variety, identity and individuality.
- A variety of compatible colours, textures and materials should be used.
- The number of dominant finish materials should be minimized yet co-ordinated.
- Subtle varieties in form enhance the projects, such as the use of 1, 2 or 3 storey units within the same project.
- The staggering of units or adding garages or carports assist in creating the architectural interest of a project while maintaining a consistent overall expression.

G.11 (b)
APPEARANCE/ ATTRACTIVENESS

DOES THE OVERALL PROJECT LOOK ATTRACTIVE?

- A project will look attractive if there is continuity and consistency in its design, and if the site planning is in harmony with the natural features of the site.
- The project should respect the character, scale, form and architecture of existing housing and surrounding buildings.
- If the new development is more massive in scale than surrounding buildings, then extra care should be taken to blend the new with the old.
- Positive elements of the existing streetscape such as scale, setback pattern, street furniture, and landscaping should be reinforced in the design for the new project.
- The roof slopes of existing buildings, window proportions, materials and form provide direction in establishing appropriateness in the design of the project and its relationship to the surrounding development.
- The spaces created by the layout of the project are as important to the visual quality and attractiveness of the project as the buildings and units themselves. Interesting, useful and pleasant exterior spaces, walkways and play areas can be created through the proper placement of buildings.
- Existing trees and vegetation can enhance the design and appearance of a project.
- Slopes can lead to a variety of interesting building forms.

EXAMPLES



REFERENCES

Doc. #2: Site Planning Guidelines for Medium Density Housing

G.1 Factors Affecting Building Location/Siting.

G.8 Open Space and Landscaping

Doc. #12: Site Planning Guidelines for Medium Density Housing

G.11 (c)

EXTERIOR FINISH MATERIALS: COST, MAINTENANCE, QUALITY, APPEARANCE, AND USE

HAVE EXTERIOR FINISH MATERIALS BEEN SELECTED WITH CONSIDERATION GIVEN TO MAINTENANCE AND UPKEEP, DURABILITY AND WEATHERING, COST, AVAILABILITY, LOCAL TECHNOLOGY AND AESTHETICS?

- Exterior finish materials should be selected with consideration given to maintenance and upkeep, durability, weathering, capital and long term upkeep costs, quality, availability of local technology to supply and handle the materials, aesthetics and compatibility with the landscape and surrounding buildings.
- An important consideration in the design of a project in a small community is whether the construction techniques and processes can be undertaken by the contractors and sub-contractors that are available locally.
- Care must be taken to use finish materials in the appropriate locations so as to reduce the likelihood of damage to the finishes and to reduce the level of maintenance to a minimum; i.e., metal siding should not be used at ground level where it can be easily dented and scratched.
- Wood should be properly stained and protected to keep it from rotting.
- The use of masonry and stucco finishes reduces the need for repeated painting and maintenance.

EXAMPLES

REFERENCES

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

PART III — The Unit

PART III.H — Unit Design

H.
UNIT DESIGN

A number of aspects of unit design are considered under separate headings. They are:

1. Unit Type Mix
2. Adaptability of the Unit
3. Comfort and Convenience
4. Accessibility and Circulation
5. Energy Conservation
6. Spaces Within the Unit
7. Outdoor Living Area.

As the designs for the unit are prepared, many of the questions may be considered more appropriate if asked by the developer, designer or builder. All actors can, however, benefit from a review of the questions if successful multiple family or medium density housing is to be developed.

Questions in this section also provide basic information on the types of units and therefore the nature of the market being sought - an important basic consideration given the nature of the development proposed and its impact on a small town. The questions also relate to construction, materials and detailed building design; aspects of development which require direct involvement of the local Building Inspector.

H.1
UNIT TYPE/MIX

The type and number of units should be determined by the anticipated demand. The appropriate number of bachelor, one bedroom, two bedroom, and 3 bedroom suites should be made available.

UNIT DESIGN QUESTIONS

H.1 (a)
NUMBER AND TYPES OF UNITS, USER TYPES

WHAT TYPES OF UNITS ARE PROPOSED AND HOW MANY?

- The number of units must meet the density and permitted use requirements of the Land Use Bylaw.
- The number and types of units should allow for varying age groups and family sizes.
- It should be possible for people of varying incomes to live in the project. There are several ways of making housing more accessible to varying incomes. They are:
  - providing a choice between renting or buying,
  - making subsidy programs for rental units match more closely home owner subsidies,
  - designing units having different sizes with different built-in facilities and a choice in accessories (washer/dryer, dishwasher), and
  - allowing the owner or purchaser to become involved in the completion or construction of the unit—sweat equity.

EXAMPLES

REFERENCES

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 7: Compact Housing

Doc. #19: Residential Site Development

Land Use Bylaw Requirements

H.1 (b)
ACCOMMODATING DIFFERENT USERS

ARE THE NEEDS OF DIFFERENT USERS ACCOMMODATED, SUCH AS:
- SINGLE PARENT FAMILIES,
- MARRIED COUPLES WITH NO CHILDREN,
- MARRIED COUPLES WITH CHILDREN,
- FAMILIES WHICH INCLUDE THREE GENERATIONS,
- SINGLES,
- SENIOR CITIZENS; AND
- HANDICAPPED PERSONS?

- Different user types have specific needs. Some of these require special consideration in the unit design and site layout.
- Special considerations should be given to:
  - functional layout,
  - minimum and maximum dimensions for rooms, corridors and stair sizes,
  - location of unit in relation to grade and to parking,
  - special safety features such as grab bars, bathroom and kitchen layouts, and
  - project amenities.

H.1 (c)
GROUPING OF USER TYPES

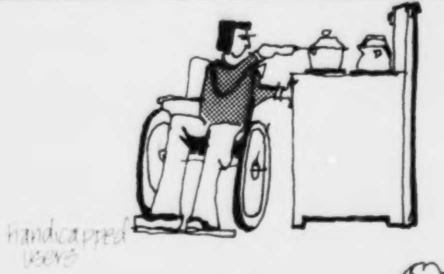
IF THERE ARE MANY TYPES OF USER, ARE THEY GROUPED ACCORDINGLY?

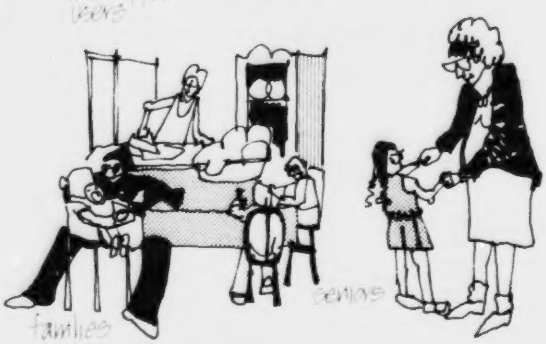
- There are some limits to the range of who can be considered a compatible "next door" neighbour.
- The character, social needs and the life styles of the different users should be considered and grouped accordingly.
- Units that are designed not to accommodate children are best located away from those units designed for family use.

H.2
ADAPTABILITY OF THE UNIT

Multiple Family Housing Projects are usually compact and require efficient designs to maximize the use of space and materials. The project should allow the user to make the unit comfortable and express his/her individual decorative taste.

EXAMPLES


handicapped
users


families
seniors

REFERENCES

Doc. # 6: Housing Families at High Densities

Doc. # 7: Compact Housing

Doc. #13: Housing the Handicapped

Doc. #16: Housing the Elderly — CMHC

Doc. #19: Residential Site Development

Doc. #7: Compact Housing

H.2 (a)

VARIETY OF SPACE USES

IS IT POSSIBLE TO USE THE SPACES WITHIN THE UNIT IN A VARIETY OF WAYS?

- Unit plans should be designed so spaces within the unit are interchangeable and can serve a number of different uses and functions.
- There should be a choice where the dining table can be placed in the unit.
- Walk-in bedroom closets or storage rooms adjacent to existing plumbing allow for future conversions to en-suite bathrooms.
- Children's sleeping areas can be designed as alcoves off a corridor or hall space so they can open up to become playing spaces during the day.
- A bedroom can serve as a den or be located off the living room to serve as an extension of the living area.

H.2 (b)

MATERIALS AND FINISHES

ARE MATERIALS AND FINISHES DURABLE AND PRACTICAL, YET ADAPTABLE TO THE NEEDS OF CHANGING OCCUPANTS?

- Walls and floors should be able to take regular washing and wiping.
- Windows should be easily reached for cleaning and should be cleanable from inside the unit.
- Baseboards, mouldings, trim, hardware, doors, shelving and appliances should be long lasting, durable and maintenance free.
- Entries and decks should be designed to accommodate wet and muddy feet.
- Users should be provided with instructions on maintenance and upkeep of different materials, finishes and appliances.

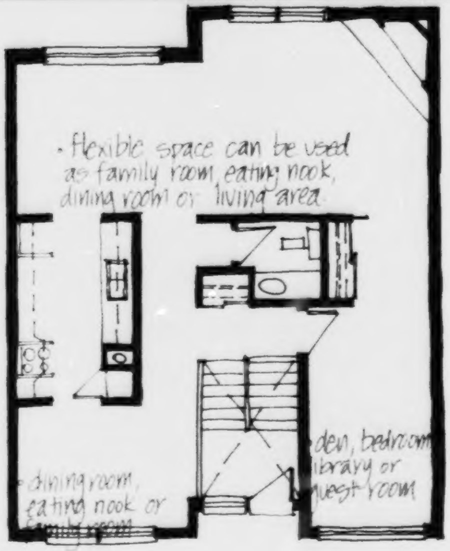
H.2 (c)

MOVING IN/OUT

CAN FURNITURE BE MOVED IN AND OUT WITHOUT DAMAGING THE BUILDING, UNIT OR YARD?

- A hard surfaced area for backing up trucks or vans for unloading and loading furniture should be provided at the loading door to the building or dwelling.
- Hallways should be wide enough to maneuver furniture through them. Public corridors in apartments should have at least 1.5m clear between walls, with the minimum clearance at any one point no less than 1.2m.
- Lighting fixtures, handrails, stairways, doors and hardware in public corridors should be durable and located so as to allow the easy movement of large boxes or pieces of furniture.
- All entry doors should be a minimum of .914m wide.
- Wall surfaces should be durable, particularly in high use areas.
- The plan layout of stairways and doorways should allow for the easy moving of furniture.
- Small ramps at grade changes will accommodate the moving of pianos, stoves and other heavy equipment that require the use of dollies.
- A keyed elevator large enough for moving furniture should be provided in taller buildings.

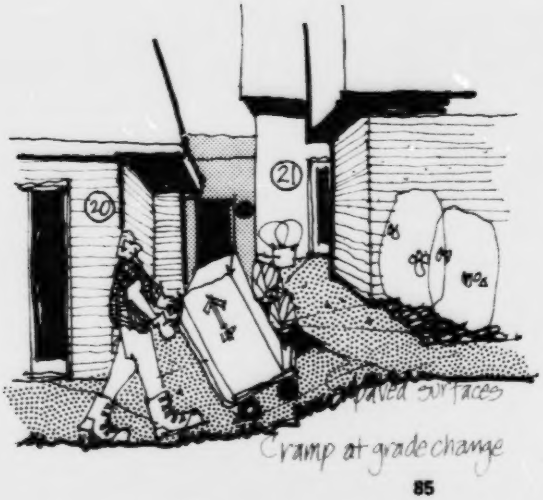
EXAMPLES **REFERENCES**


flexible space can be used as family room, eating nook, dining room or living area
den, bedroom library or guest room
dining room, eating nook or family room

Doc. # 7: Compact Housing

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #7: Compact Housing


20
21
paved surfaces
ramp at grade change

H.3
COMFORT AND CONVENIENCE

The interior design and construction and materials of each unit in a project should allow the occupant to easily maintain walls and floor, kitchen and bathroom areas. There should be adequate sound proofing in common walls between units. Rooms requiring a quiet environment such as bedrooms should be located away from noisier areas of the unit and adjacent units.

COMFORT & CONVENIENCE QUESTIONS

H.3 (a)
BUILT-IN FURNISHINGS

CAN THE UNIT BE OCCUPIED COMFORTABLY, REGARDLESS OF THE FURNISHINGS ONE POSSESSES?
- Built-in cupboards, shelving, wide sills and ledges make a house easier to feel lived in with few furnishings.
- Floor finishes of hard materials leave the choice of location of carpets to the occupant.

H.3 (b)
MAINTENANCE & HOUSEWORK

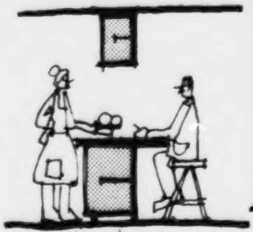
DO THE LAYOUT, MATERIALS AND FINISHES IN THE UNIT FACILITATE EASE OF MAINTENANCE AND HOUSEWORK?
- Walls and floors should be durable and able to take regular washing and cleaning.
- Windows should be cleanable from the inside of the unit.
- Hardware, trim, doors and finishes should be durable and long lasting. This is especially applicable to entrance doors.
- A facility should be provided at the entrance where people can leave muddy boots and wet clothes.

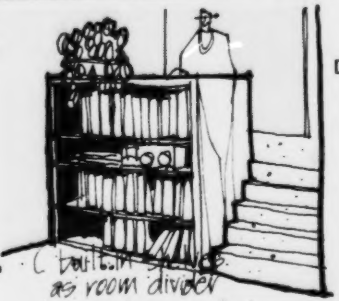
H.3 (c)
SOUNDPROOFING

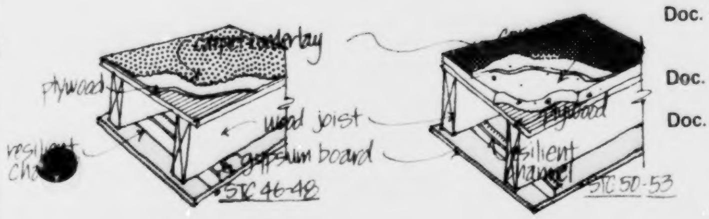
ARE WALLS, FLOORS AND STAIRWAYS BETWEEN UNITS ADEQUATELY SOUNDPROOFED?
- Special care should be taken in design, detailing, and construction of walls, floors and stairways to provide adequate sound insulation between units.
- Spaces should be laid out so that similar activities in adjacent units share party walls.
- Care should be taken in the placement of utilities, appliances and plumbing in walls to avoid sound disturbances from them.
- In party walls and floors, a minimum 50 s.t.c. sound transmission level should be provided.

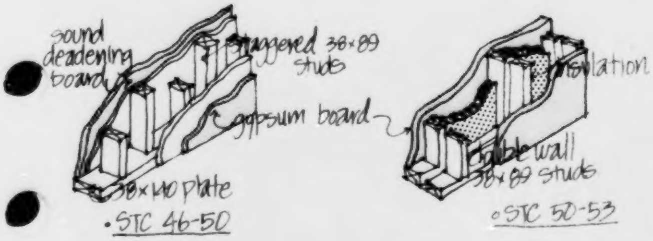
  NOTE: s.t.c. sound transmission class, reference Alberta Building Code, 1981, Part 9. "Housing and Small Buildings."
- Storage spaces and non-habitable rooms should be located along the corridor walls of apartment buildings.

EXAMPLES


eating bar


built-in shelves as room divider


carpet underlay
plywood
wood joist
resilient channel
gypsum board
• STC 46-48
carpet
plywood
resilient channel
STC 50-53


sound deadening board
staggered 38×89 studs
gypsum board
38×140 plate
• STC 46-50
insulation
double wall 38×89 studs
∘ STC 50-53

REFERENCES

Doc. #7: Compact Housing

H.2 Adaptability of the Unit

Doc. #7: Compact Housing

Doc. # 6: Housing Families at High Densities

Doc. # 7: Compact Housing

Doc. #17: Alberta Building Code, 1981

COMFORT & CONVENIENCE QUESTIONS

H.3 (d)

PRIVACY AND NOISE CONTROL WITHIN THE UNIT

DOES THE DESIGN AND STRUCTURE OF EACH UNIT PERMIT:
— PRIVACY WITHIN THE UNIT FOR FAMILY MEMBERS?
— CONTROL OVER NOISY ACTIVITY SPACES WITHIN THE UNIT?

- The unit should be planned so that noisy and quiet activity spaces can be separated or interconnected as desired.
- Circulation should be arranged so that residents do not have to pass through the living areas or bedroom areas to go from one area of the house to another.
- Soundproofed internal walls or strategic placement of closets and cupboards can increase sound privacy between rooms such as between bedrooms and bathrooms.

H.4

ACCESSIBILITY & CIRCULATION

Access to Multiple family units should be as convenient as possible for the occupant and close to designated parking areas. Common hall and stairways should be wide enough to allow free movement of occupants and furniture. The pedestrian circulation areas should be well lit and visible from the units to allow surveillance of children and visitors.

ACCESSIBILITY & CIRCULATION QUESTIONS

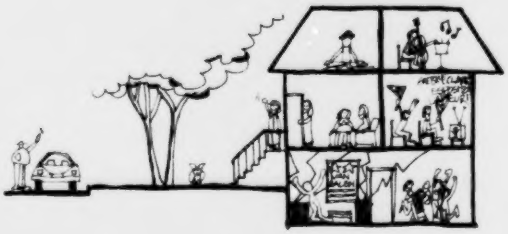
H.4 (a)

DIRECT ACCESS

DOES THE UNIT HAVE DIRECT ACCESS FROM A PUBLIC WALKWAY OR CORRIDOR?

- Units must have direct access from public walkways or corridors.
- Building corridors serving as accesses to units should be short and unobstructed.

EXAMPLES



REFERENCES

Doc. #6: Housing Families at High Density

Doc. #7: Compact Housing

EXAMPLES

REFERENCES

G.4 — Identity

G.6 — Access and Circulation

Doc. #7: Compact Housing

ACCESSIBILITY & CIRCULATION QUESTIONS

H.4 (b)

ACCESS TO UNIT FROM PARKING

DOES THE UNIT HAVE CONVENIENT ACCESS TO THE CAR PARKING OR DROP-OFF AREA FOR LOADING AND UNLOADING OF PEOPLE, GROCERIES AND BAGGAGE?

- The walking distance from a dwelling to a parking space should reflect the type of user, his/her need for shelter, as well as safety and security.
- If parking is not adjacent to the unit, then a drop-off zone should be provided.
- Covered walkways or extended roof overhangs should be provided if possible.

H.4 (c)

GROUND ACCESS

IF THE UNIT IS ABOVE GRADE, IS GROUND ACCESS EASY AND DIRECT?

- Easy access to grade should be provided for all units - especially units designed to accommodate children.
- Access galleries and stairways should be secure, allow for casual surveillance and supervision by neighbours, while at the same time maintaining an element of privacy for each unit.

H.5

ENERGY CONSERVATION

The comfort of the occupants of a multiple housing project will depend on their ability to control the temperature in their unit. It is important to allow each occupant to control his own heat source and ventilation systems to meet his individual comfort levels. Units should be equipped with the necessary equipment to achieve this and be designed to allow maximum passive solar energy gain.

ENERGY CONSERVATION QUESTIONS

H.5 (a)

HEAT SOURCE

ARE THE TYPE AND LOCATION OF THE HEATING SOURCE WELL CHOSEN?

- Temperature control and adjustment should be possible in each unit and preferably in different areas in each unit.
- The heating system should be economical to run.
- It should be possible to add air cleaning or conditioning to the system.
- The heat source, flues and fireplaces should be located centrally in the building or the unit to take maximum advantage of heat transfer from these elements.
- The heat source should be sound proofed.
- The availability and cost of fuels in the particular community should be assessed prior to the selection of the heating and ventilating system.

EXAMPLES

REFERENCES

G.7 Parking

Doc. #1: Parking Areas Advisory Document — CMHC

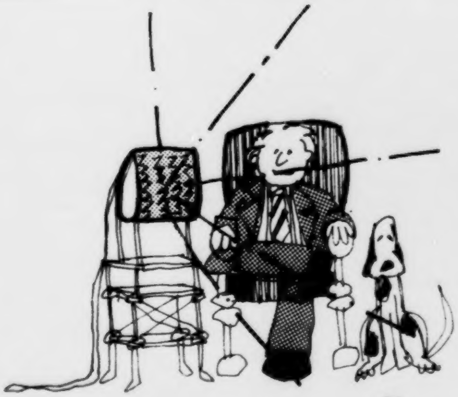
Doc. #7: Compact Housing

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

EXAMPLES

REFERENCES



Doc. # 7: Compact Housing

Doc. # 5: Site Planning Criteria — CMHC

Doc. #18: Energy Efficient Housing — A Prairie Approach

H.5 (b)

BUILDING FORM

IS THE BUILDING DESIGNED IN A SIMPLE COMPACT FORM WITH A MINIMAL AMOUNT OF EXTERIOR SURFACE?

- Units that maintain simple compact forms with the least amount of exterior surface are the most energy efficient.
- Complex projections, dormers and attached unheated garages, or indentations in the heated space of a plan or section, reduce the energy efficiency of a unit.
- Unheated building elements such as garages, vestibules and storage sheds can be used effectively for insulating air spaces on the north side of a building while providing visual interest and variety in housing form.

H.5 (c)

CLIMATE CONTROLS

HAVE DEVICES SUCH AS TRELLISES, SHADING ELEMENTS (AWNINGS), WINDSCREENS AND SHELTERS BEEN UTILIZED TO CONTROL CLIMATE?

- The use of climate controls in the form of porches (south and west) trellises (south and west) windscreens (on prevailing windward side) awnings (east, south and west), shutters and small green houses (south) assist in controlling climate within individual units.
- The use of shading devices that screen windows from the summer sun, but permit solar heat gain in winter assists in controlling climate within individual units.
- Provision of unheated vestibules and vestibule doors help reduce drafts in the living spaces.

H.5 (d)

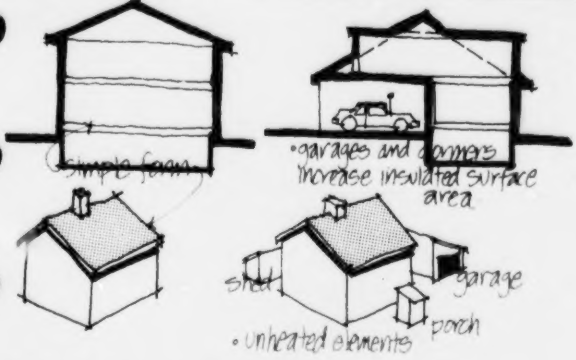
WINTER SUN/SUMMER SHADE

IS THE SUN ALLOWED INTO THE UNIT IN THE WINTER AND IS IT SHADED IN THE SUMMER?

- Built-in shading elements (correctly designed according to time of day, date, sun angles, and latitude of community) can protect windows from heat buildup due to summer sun, while at the same time can make use of solar gains during the winter.
- Deciduous trees can provide shade in the summer for dwelling walls and windows while allowing the sun to penetrate in the winter.
- Landscaping should also be used to control heat gain and to protect dwellings from wind and sun.

EXAMPLES

REFERENCES


simple form
•garages and dormers increase insulated surface area
shed
garage
porch
• unheated elements

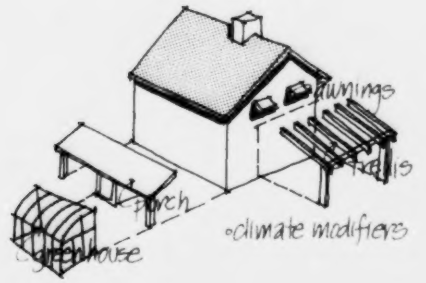
Doc. #15: Builders' Guide to Energy Efficiency in New Housing — HUDAC

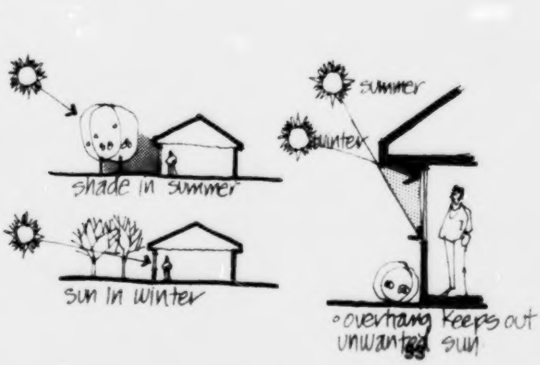
Doc. #18: Energy Efficient Housing — A Prairie Approach

G.1 Factors Affecting Building Location/Siting

Doc. #15: Builders' Guide to Energy Efficiency in New Housing — HUDAC

Doc. #18: Energy Efficient Housing — A Prairie Approach


awnings
trellis
porch
greenhouse
•climate modifiers


summer
winter
shade in summer
sun in winter
•overhang keeps out unwanted sun

Doc. #15: Builders' Guide to Energy Efficiency in New Housing — HUDAC

Doc. #18: Energy Efficient Housing — A Prairie Approach

H.5 (e)

INTERNAL LAYOUT

ARE LIVING SPACES LOCATED ON THE SOUTH SIDE OF THE UNIT AND EXPOSED TO THE SUN?

- Floor plans should place rooms and windows where they can take maximum advantage of available sunlight. It's preferable to have sun in the kitchen and bedrooms in the morning, with noon and afternoon sun in the living and dining areas.
- Non-living spaces such as bathrooms and utility rooms should be placed on the north side because these rooms require little if any natural light.

H.5 (f)

PASSIVE SOLAR HEATING

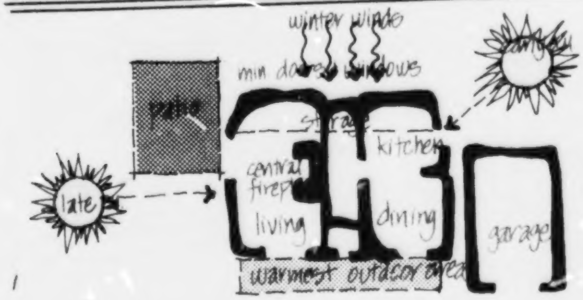
CAN THE UNIT BE HEATED THROUGH THE USE OF PASSIVE SOLAR HEATING METHODS?

- Passive solar design relies on southerly orientation of the buildings, with few windows on the east and west sides, and minimal window area to the north. In-coming sunlight generates heat when it strikes any object. Where the ratio of window area to floor area is large, overheating may occur. In order to prevent this, sufficient "thermal mass" (heat storage capacity) such as concrete floor slabs, heavy concrete walls, water filled drums, or other devices can be provided to absorb the heat from the sunlight and then release the stored up heat back into the interior space when the sun is not shining.
- Two basic designs that will enhance "solar gains" are:
  - (i) Direct gain systems - where the living space is directly heated by the sun and the solar heat is stored in the mass of the house itself.
  - (ii) Mass wall system - where a glass-covered mass collects and stores heat directly from the sun and then transfers heat to the living space later.

    Variations on the mass wall system are the Trombe wall and attached greenhouses. The Trombe wall not only radiates heat to the interior, but heats and circulates household air by convection, drawing it in at the bottom and discharging it at the top. In summer, this air movement can provide natural ventilation if a vent is provided to the outdoors. An attached greenhouse will also circulate hot air to the interior space, as required, but this can also create humidity problems within the unit.
- There are two basic types of solar space heating systems:
  (i) a short term storage solar system, and (ii) an annual storage solar system.
- At the present time in Canada, neither of these systems is currently cost effective for individual residential applications.

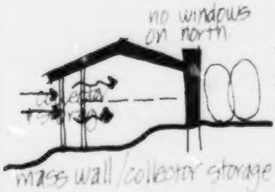
EXAMPLES

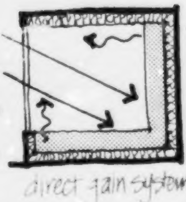
REFERENCES

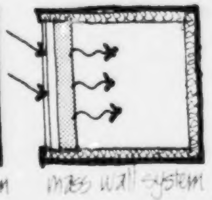

winter winds
min doors & windows
early
patio
storage
kitchen
central fireplace
living
dining
garage
warmest outdoor area
late

Doc. #15: Builders' Guide to Energy Efficiency in New Housing — HUDAC

Doc. #18: Energy Efficient Housing — A Prairie Approach


no windows on north
collector storage
mass wall/collector storage

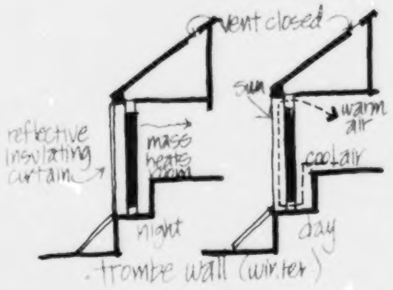

direct gain system

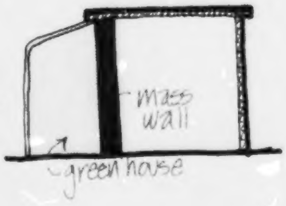

mass wall system

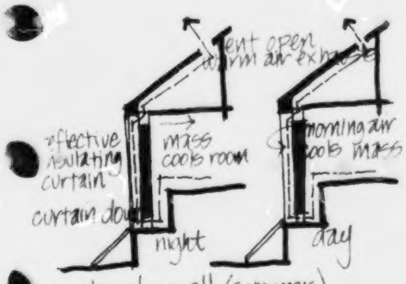
Doc. #15: Builders' Guide to Energy Efficiency in Housing — HUDAC

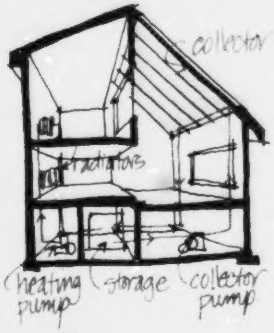
Doc. #18: Energy Efficient Housing — A Prairie Approach

Doc. #19: Residential Site Development


vent closed
reflective insulating curtain
mass heats room
sun
warm air
cool air
night
day
trombe wall (winter)


mass wall
green house


vent open warm air exhaust
reflective insulating curtain
mass cools room
morning air cools mass
curtain down
night
day
trombe wall (summer)


collector
radiators
heating pump
storage
collector pump

H.6
SPACES WITHIN THE UNIT

Adequate living space should be provided for the type of unit design. The sizes should reflect the activities expected to take place in them. The pathways outside the unit and the entry and children's play areas should be visible from the unit.

SPACES WITHIN THE UNIT QUESTIONS

H.6 (a)
ENTRY

- Should be large enough to accommodate more than one person at a time.
- Should have adequate storage for clothing, boots, and other household items.
- Should be arranged so as to provide visual privacy to the rest of the unit.
- Protection from the climatic elements when opening the door should be considered in the design and location of the entrance to the unit.
- Should provide opportunities for visual surveillance of the entry area outside the unit.

H.6 (b)
ENTRY, VISIBILITY AND APPEARANCE

CAN THE MAIN ENTRY TO THE UNIT BE SEEN FROM THE PUBLIC STREET AND BE ALTERED IN DESIGN OR APPEARANCE BY THE OCCUPANT?

- The main entry door or walkway to the door should be seen from the street and be clearly identified.
- Alterations to the appearance of the entry must carefully consider the balance between personal taste and the benefits of the overall appearance and continuity of the whole project.
- Some of the following alterations should be possible to allow individual self-expression.
  - changing a door finish or colour
  - adding a screen door
  - adding canopies or awnings
  - applying different colours or materials to the front facade
  - adding a balcony, porch or sunroom
  - enlarging windows
  - changing the lighting on the front of the house
  - hanging plants, or
  - adding planter boxes.

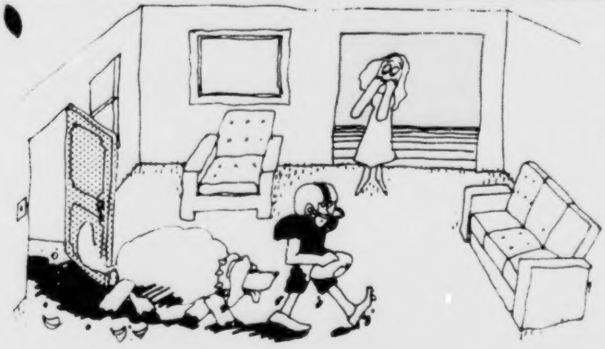
H.6 (c)
ENTRY SECURITY AND SURVEILLANCE

IS THE MAIN ENTRANCE OVERLOOKED FROM WITHIN THE UNIT AND DOES IT HAVE SECURITY VIEWING?

- The main entry should be capable of surveillance from another window or space within the unit.
- Entry doors should have peep-holes.
- The main entry should be private by separating it from the living area of the unit. The rest of the unit should not be visible from the main entry door.

EXAMPLES

REFERENCES



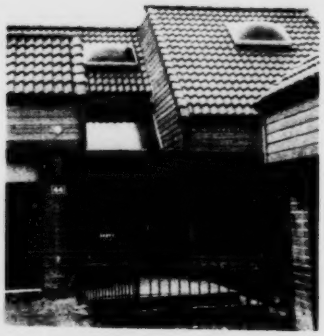
Doc. # 6: Housing Families at High Densities

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

G.4 — Identity

G.5 — Security and Privacy



Doc. # 6: Housing Families at High Densities

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Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

SPACES IN THE UNIT **QUESTIONS**

H.6 (d)
LIVING ROOM

- Should be capable of accommodating many diverse family activities.
- Should allow for flexibility in furniture arrangement such as having enough unbroken wall surface to allow placement of furniture in different arrangements.
- Should be insulated from noise occurring in children's bedrooms.
- Should not be used for circulation space or to provide access to the rest of the unit.
- Should be separate from the dining and kitchen areas to allow for maximum flexibility and use of these areas.
- Should be screened from the entry.
- Should have a good view out of the unit.

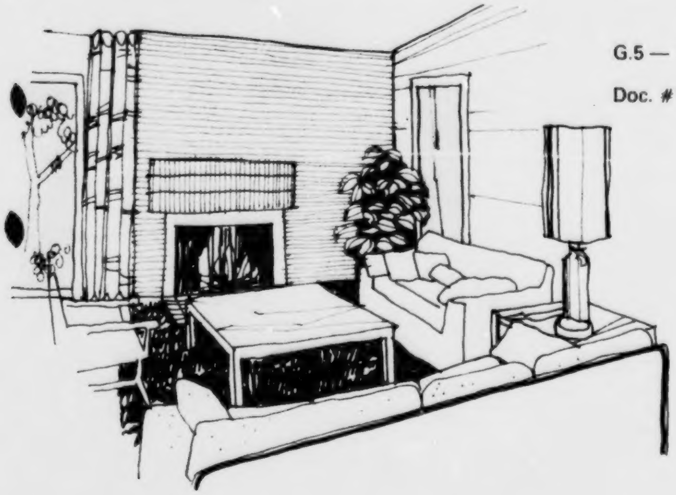
H.6 (e)
DINING ROOM

- Should allow for a wide range of family activities to take place (eating, children doing homework, sewing, balancing the cheque book, etc.).
- Should provide adequate space for a dining table, 6 chairs, china cabinet or buffet.
- Circulation space around the dining table should be allowed for.
- Should have convenient access to the kitchen and/or living area.
- Where possible, provide natural light and a view out of the unit.

H.6 (f)
KITCHEN

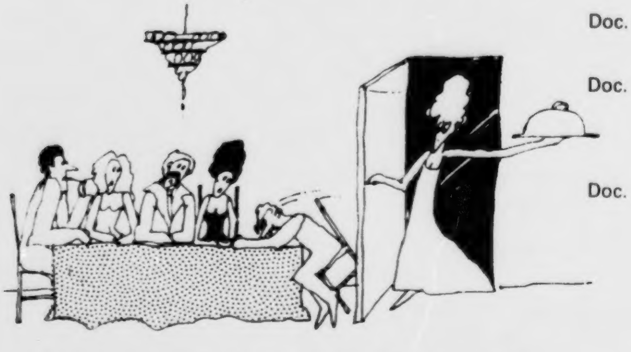
- Kitchens in larger units serve both as kitchens and as social activity centres and should have eating areas with tables and chairs.
- Should provide access to other living areas or to the outdoor living area.
- A view to the outside of the unit is desirable especially if it overlooks children's play areas.
- The size and operation of the kitchen can be made variable by:
  - — having sections of counters moveable on castors,
  - — a breakfast nook which can extend the kitchen, and
  - — extra space which will allow for the addition of cupboards in the future.
  - — Finish materials and flooring should be easy to maintain and long lasting.

EXAMPLES **REFERENCES**



G.5 — Security and Privacy

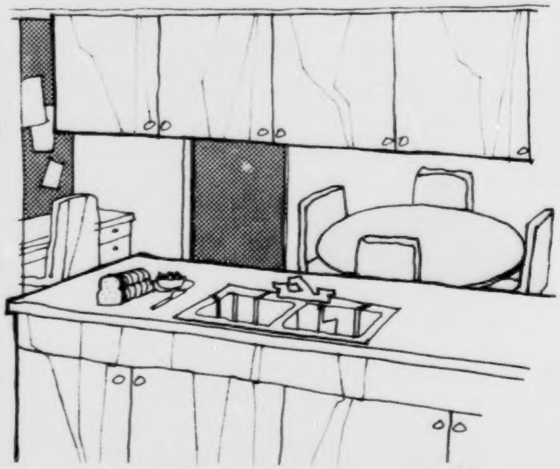
Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing



Doc. # 6: Housing Families at High Densities

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"



Doc. # 6: Housing Families at High Densities

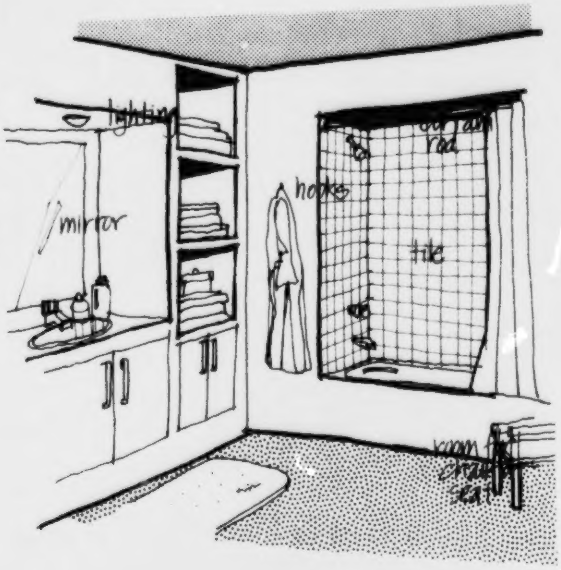
Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

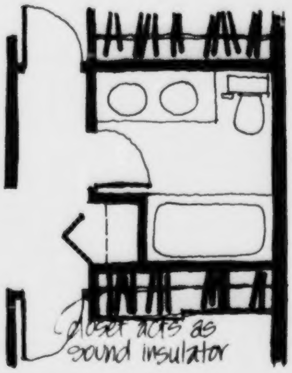
Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

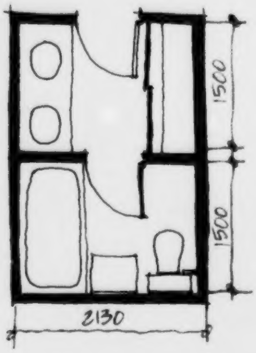
H.6 (g)
BATHROOM

- Allow for the use of the bathroom by more than one person at a time.
- Toilet should be separated from washing facilities.
- Should have a lockable or childproof medicine cabinet
- Two washrooms should be provided for units that will have 5 or more residents.
- In 2 storey units, a full bath in the bedroom area and a half-bath off the living areas is desirable.
- The bathrooms should be located near the bedrooms.
- The wall between the bedrooms and the bathroom should be sound insulated. The use of closets assists this insulation.
- The bathroom should be well ventilated.
- Provision should be made to allow for the bathing of children. Enough clearance should be allowed for the bathinette, or alternatively, clear access to the tub should be provided.

EXAMPLES


lighting
mirror
hooks
curtain rod
tile
foam chair seat


closet acts as sound insulator


1500
1500
2130

REFERENCES

Doc. # 6: Housing Families at High Densities

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

H.6 (h)
BEDROOMS

- Family units should have at least 2 bedrooms.
- There should be one clothes closet (min. length of 1 m) per resident.
- Bedrooms should be located to provide access to bathrooms and audio and visual privacy from the living areas and entry rooms.
- Bedrooms must have windows and be naturally ventilated.
- Children's bedrooms may open up with sliding doors into the hallway to create large play areas.
- Rooms for more than 1 child should be capable of being arranged to provide a private area for each child.
- Beds should be arranged with access to both sides for making beds, and so as not to block electrical outlets and radiators.

H.6 (i)
LAUNDRY AREA

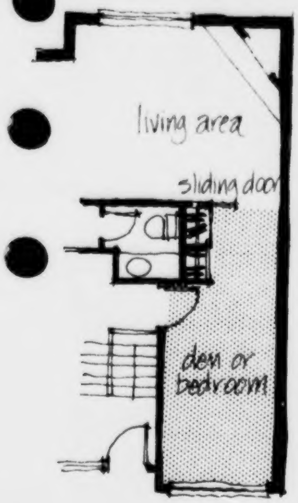
- A laundry area should be provided in each building or in each dwelling unit.
- Central laundry rooms should provide sufficient washers and dryers for the number of units to be served. They should be well lit and easy to maintain, and have pleasant environments where mothers can overlook the children's play areas.
- Where a central laundry room is not provided, a washer and dryer or hook-up should be provided in each unit. This should be provided in the basement, utility room, bathroom or kitchen.

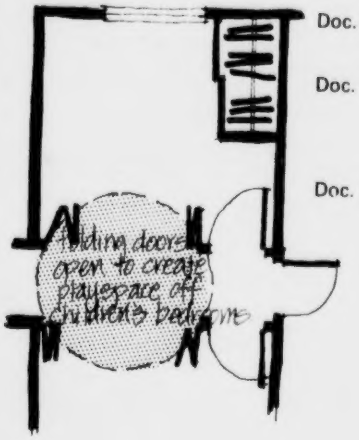
H.6 (j)
BASEMENT

- Adequate floor space, headroom, and an unobstructed plan for maximum use for a variety of activities should be provided.
- Windows should be provided in the basement.
- Roughed in plumbing for future additions may be provided.
- There should be access to grade from a basement without passing through the living area.
- Water taps, electrical hook-up and standpipe for washer and dryers should be provided if not provided elsewhere in the unit or project.

EXAMPLES

REFERENCES

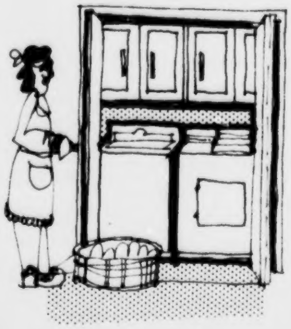

living area
sliding door
den or bedroom


folding doors open to create playspace off children's bedrooms

Doc. # 6: Housing Families at High Densities

Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"



Doc. # 6: Housing Families at High Densities

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Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

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Doc. #14: User Generated Program for Low Rise Multiple Dwelling Housing

Doc. #17: Alberta Building Code 1981, Part 9, "Housing and Small Buildings"

H.7
OUTDOOR LIVING AREA

Each of the units should have direct access to the ground and a screened area for the occupants' use. Larger areas would serve common recreational needs of the occupants of the entire project. Hard surfaced areas will provide places for many types of recreational needs while softer surfaces will allow more passive activities to take place.

OUTDOOR LIVING AREA QUESTIONS

H.7 (a)
EXTERIOR AREAS

IS THERE EXTERIOR ACCESS TO THE OUTDOOR LIVING AREA?
- Outdoor living areas at grade should have access from *outside* the unit. This permits additional access to the unit, access by maintenance equipment (lawn mowers, etc.) and access to semi-public spaces.
- A balance should be achieved between openness, accessibility and the level of privacy appropriate to the occupants.
- A fence with a gate or landscaping can add privacy to the area.
- Access to the outdoor living area from the unit, particularly from the kitchen or living area, is desirable.

H.7 (b)
GROUND SURFACE MATERIALS

DOES THE OUTDOOR LIVING AREA HAVE PAVED AND LAWNED SURFACES TO ACCOMMODATE A VARIETY OF ACTIVITIES?
- Hard surfaces are needed for tricycles, toys, barbeques, and tables. Soft surfaces are needed for flowers, planting, sunning, croquet and lawn darts.

H.7 (c)
CONTAINMENT OF CHILDREN AND PETS OBSERVABLE FROM UNIT

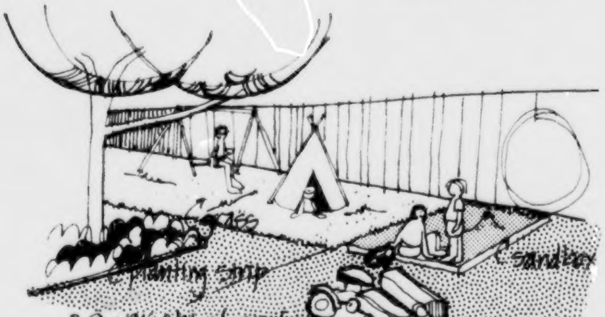
CAN CHILDREN AND PETS BE CONTAINED IN THE OUTDOOR LIVING AREA AND BE OBSERVED FROM THE UNIT?
- Supervision is easier when the kitchen or family room areas face the yard or outdoor living area.
- Whenever possible, the outdoor living area should be enclosed or capable of being enclosed.
- Light temporary fencing provides for the enclosure of young children and can be easily removed at a later time.

EXAMPLES

REFERENCES

Doc. #4: Outdoor Living Areas Advisory Document — CMHC

Doc. #6: Housing Families at High Densities



◦ a variety of surfaces for a variety of activities

Doc. #4: Outdoor Living Areas Advisory Document — CMHC

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

Doc. #4: Outdoor Living Areas Advisory Document

Doc. #6: Housing Families at High Densities

Doc. #7: Compact Housing

H.7 (d)

GRADE ACCESS

IS THE OUTDOOR LIVING AREA LOCATED AT GRADE, OR DOES IT HAVE IMMEDIATE ACCESS TO GRADE?

- The location of the outdoor living area should be adjacent to the unit.
- Outdoor living areas for dwellings higher than 18 m should be provided with protection from high winds and other climatic extremes. Advantage should be taken of good views.
- Outdoor living areas should be provided for units above grade.
- Roof decks should not be more than 2 storeys above grade.

H.7 (e)

SIZE

IS THE OUTDOOR LIVING AREA LARGE ENOUGH TO MEET THE NEEDS OF THE RANGE OF FAMILY ACTIVITIES APPLICABLE TO THE TYPE OF UNIT?

- The size and shape of an outdoor living area should be capable of accommodating the needs and activities of the intended user. It should permit the following:
  - in family housing, a variety of family activities including the active play of pre-schoolers,
  - in non-family housing, a variety of passive activities, and
  - in handicapped housing, space for two wheelchairs and a small table together with appropriate circulation space.
- A balcony should be at least 2 m deep to be useful.

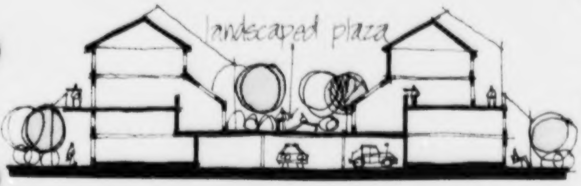
H.7 (f)

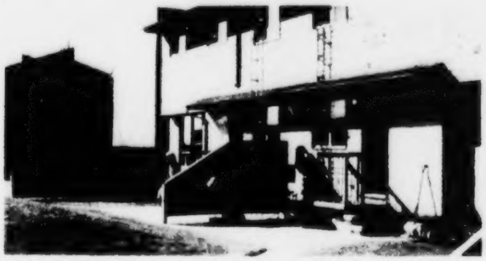
VIEW, SUNLIGHT AND VENTILATION

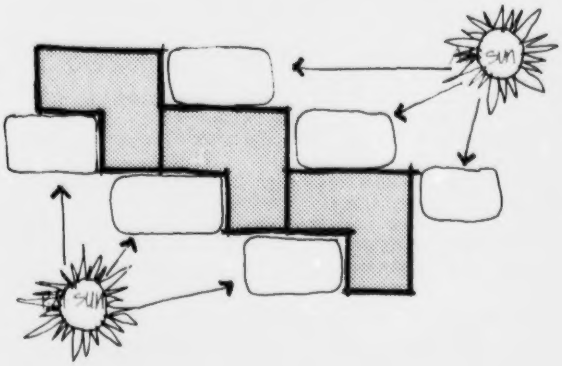
HAVE THE OUTDOOR LIVING AREAS BEEN ARRANGED TO MAXIMIZE AVAILABLE OPPORTUNITIES FOR A VIEW AND ACCESS TO SUNLIGHT AND VENTILATION?

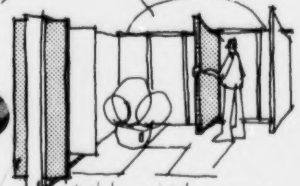
- A balance of sunlight and shade is an important factor influencing the attractiveness of an outdoor living area. Opportunities should be made to take advantage of views and access to sunlight and ventilation.
- Whenever possible, housing units should be arranged to orient outdoor living areas towards the south-east, south and south-west, with at least half of their areas receiving two hours of sunlight per day. Outdoor living areas which face north are less desirable.
- A means whereby the occupant can screen a part of the outdoor living area from unwanted sunlight should be provided, especially from the western sun late in the day.
- Shelter from strong winds and access to cooling breezes are important for extended use of an outdoor living area.
- Outdoor living areas should be located on the leeward (downwind) side of the dwelling when the direction of strong prevailing winds is known. The effects of strong winds can be reduced through the use of semi-porous screens, and planting.
- Short range, middle range and long range views are desirable from outdoor living areas if they can be achieved.

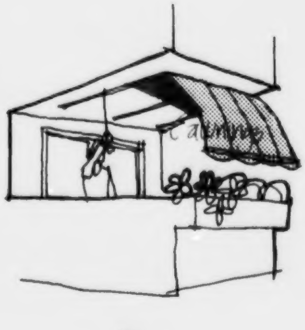
EXAMPLES


landscaped plaza






adjustable wind screens around patio



REFERENCES

Doc. #4: Outdoor Living Areas Advisory Document — CMHC

Doc. #6: Housing Families at High Densities

Doc. # 4: Outdoor Living Areas Advisory Document — CMHC

Doc. #13: Housing the Handicapped

G.1 — Factors Affecting Building Location/Siting

Doc. # 4: Outdoor Living Areas - Advisory Document — CMHC

Doc. #12: Housing the Handicapped

H.7 (g)
SECURITY AND PRIVACY

DOES EVERY DWELLING POSSESS A PRIVATE OUTDOOR SPACE DESIGNED SO THAT AT LEAST ONE PART OF IT CANNOT BE SEEN OR INTRUDED UPON BY NEIGHBOURS, AND IS IT POSSIBLE FOR THE OCCUPANT TO ADJUST THE SPACE TO SUIT HIS/HER OWN REQUIREMENTS FOR SECURITY AND PRIVACY?

- Every unit should have a private outdoor living area capable of accommodating regular day-to-day outside activities by the users.
- Outdoor living areas should (at least in part) be visually private or capable of easily being made private by the occupant through separation space and screening techniques.
- In order to maximize the use of the outdoor living area as a living space by the occupant, opportunities should be provided to adjust the space to suit the occupant's requirements such as through the use of trellises and adjustable screens, or through the development of a garden area.

H.7 (h)
NOISE CONTROL

IS THE OUTDOOR LIVING AREA BUFFERED FROM NOISE FROM THE SURROUNDING SITE ACTIVITIES AND PUBLIC STREETS?

- Noise from busy streets and adjacent public areas in addition to sound reflected between facing multi-storey buildings can impact on the quiet enjoyment of the outdoor living area. In the planning of the project, adjacent noise sources and levels should be considered when locating the outdoor living areas.
- Distance (separation space between buildings) as well as berming and/or plants can be used to reduce the impact of an adjacent noise source as follows.
  - Outdoor living areas can be located so that the dwelling unit is between them and the noise source.
  - Extensive berming, combined with plants, can be used to create a noise barrier.
  - If the noise source is immediately adjacent to the outdoor living area, a solid wall may be required.
- Buildings should be located so that the building faces are not parallel to each other. However, where site constraints do not allow building faces to be angled away from each other, measures should be taken to ensure that noise from outdoor living areas does not disrupt the use of adjacent bedroom areas.

H.7 (i)
LANDSCAPING OR ENCLOSING FRONT OF UNIT

CAN THE FRONT OF THE UNIT BE LANDSCAPED AND/OR ENCLOSED BY THE OCCUPANTS?

- Provisions for landscaping or screening the front yard within certain guidelines should be considered. Possibilities include:
  - Walls, fences or hedges can be placed to the line of the public walk or road allowance to form private entrances, courtyards or enclosed gardens.
  - Window boxes or hanging baskets can be added.
  - Flowers, shrubs and trees can be planted.
  - A small porch or patio can be built.

EXAMPLES

REFERENCES

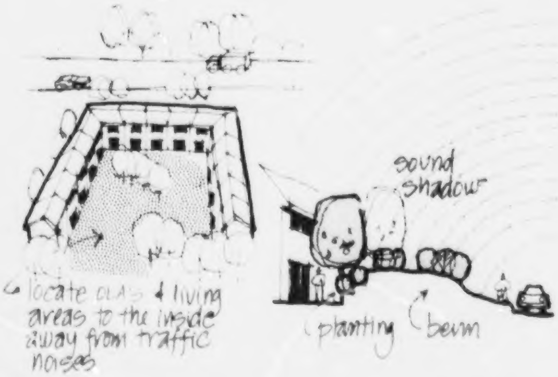
G.1 — Factors Affecting Building Location/Siting

G.5 — Security and Privacy

Doc. # 2: Site Planning Guidelines for Medium Density Housing

Doc. # 4: Outdoor Living Areas Advisory Document — CMHC

Doc. # 7: Compact Housing


locate OLA's & living areas to the inside away from traffic noises
sound shadow
planting
berm

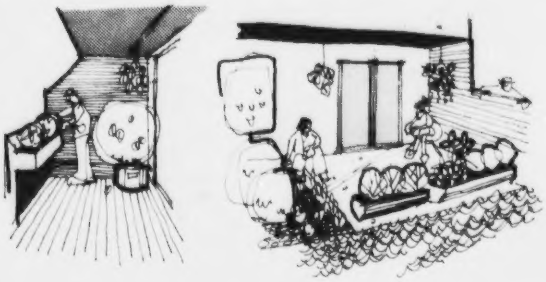
G.1 — Factors Affecting Building Location/Siting

G.5 — Security and Privacy

Doc. # 4: Outdoor Living Areas Advisory Document — CMHC

Doc. # 7: Compact Housing

Doc. #19: Residential Site Development



G.8 Open space and Landscaping

Doc. # 7: Compact Housing

PART IV — Summary Evaluation

IV. SUMMARY
EVALUATION

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

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Project or File No. ____________________

Project Title ____________________

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Project location ____________________

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Project description ____________________

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____

MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:
Development Officer ____________________

Municipal Planning Commission ____________________

Development Appeal Board ____________________

Council ____________________

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his/her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and/or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

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Project Title ______

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Project location ______

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Project description ______

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MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
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D.1(a)	Who will be responsible for the security of the project and its management?	
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To be dealt with by:
Development Officer ____________________

Municipal Planning Commission ____________________

Development Appeal Board ____________________

Council ____________________

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
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E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
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G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
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G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
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COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
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G.4(b)	Are the units arranged so as to create a sense of community?	
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COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
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G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
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COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

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Project or File No. ______________________________

Project Title ______________________________

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Project location ______________________________

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Project description ______________________________

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MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:
Development Officer

Municipal Planning Commission

Development Appeal Board

Council

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

If it is found that the check list is used frequently then specific easy-to-use forms will be printed for general use.

Project or File No.

Project Title

Project location

Project description

MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:
Development Officer

Municipal Planning Commission

Development Appeal Board

Council

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and or enclosed by the occupants?	

COMMENTS	REFERENCES

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

If it is found that the check list is used frequently then specific easy-to-use forms will be printed for general use.

Project or File No. ______________________________

Project Title ______________________________

____

Project location ______________________________

____

____

Project description ______________________________

____

____

____

MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:

Development Officer

Municipal Planning Commission

Development Appeal Board

Council

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his/her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and/or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

If it is found that the check list is used frequently then specific easy-to-use forms will be printed for general use.

Project or File No. ______________________________

Project Title ______________________________
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Project location ______________________________
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Project description ______________________________
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MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:
Development Officer

Municipal Planning Commission

Development Appeal Board

Council

COMMENTS	**REFERENCES**

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his/her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and/or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

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Project or File No. ____________________

Project Title ____________________

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Project location ____________________

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Project description ____________________

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MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

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To be dealt with by:
Development Officer ______

Municipal Planning Commission ______

Development Appeal Board ______

Council ______

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his/her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and/or enclosed by the occupants?	

COMMENTS	REFERENCES

PART IV — Summary Evaluation

SUMMARY EVALUATION

The following list contains all the questions asked in the manual in summary form allowing the reader an opportunity to use the check list for each project evaluated. It is suggested that a copy of this section together with appropriate comments be completed and attached to the plans for each project to facilitate evaluation and decision making.

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Project or File No. ______________________________

Project Title ______________________________

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Project location ______________________________

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Project description ______________________________

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MULTIPLE FAMILY — SUMMARY EVALUATION SHEET

KEY	QUESTION	DEALT WITH
B.1(a)	Who will own the Project?	
B.1(b)	Who will be responsible for financing the project?	
B.1(c)	What will likely be the financial impact of delays in the approval process?	
C.1(a)	What are the pressures forcing the building of multiple family or medium density housing in this community?	
C.1(b)	Does the project meet the needs of the community for housing its anticipated population?	
D.1(a)	Who will be responsible for the security of the project and its management?	
D.1(b)	Has adequate provision been made for garbage and snow removal and storage?	
D.1(c)	Has consideration been given to the maintenance of lawns, fences, planting and interior and exterior building and road surfaces including workshop space and maintenance equipment storage?	

To be dealt with by:
Development Officer ____________________

Municipal Planning Commission ____________________

Development Appeal Board ____________________

Council ____________________

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
D.1(d)	Has consideration been given to maintenance of mechanical and electrical systems?	
D.1(e)	Is there a place for residents to do their own repairs?	
E.1(a)	Is the project compatible with the social and economic patterns evident in the existing area?	
E.1(b)	Does the project "fit" into its neighbourhood in terms of scale and architectural character?	
E.1(c)	What is the relationship of the project to the general amenities of the area such as shops, schools, recreation facilities, community facilities, transportation and utilities?	
E.1(d)	What special concerns have been raised by the proposal and how have they been dealt with?	
F.1(a)	What impact does the topography of the site have upon the design of the project?	
F.1(b)	What are the soil conditions on the site?	
F.1(c)	What natural vegetation exists on the site?	
G.1(a)	Has consideration been given to the siting of the units: — to take advantage of light and warmth from the sun, — to avoid buildings casting shadows onto outdoor living areas and habitable windows of other buildings, — to provide for cross ventilation, and — to take advantage of energy conservation techniques?	
G.1(b)	Have the contours and topography of the land been used to: — complement the siting of buildings, — locate and complement the use of open space, — facilitate the location of roads and walkways, and — facilitate surface drainage?	
G.1(c)	Have suggested gradient standards set by the town been followed?	
G.1(d)	Can views and vistas be arranged from the units?	
G.1(e)	Are potentially noisy places or high traffic areas and unattractive spaces arranged or screened to minimize their effect on adjacent areas?	
G.1(f)	Are dwellings on the edge of the project protected from potentially disturbing factors occurring in the neighbourhood such as arenas, public playing fields, roads and industries?	
G.2(a)	Is the site capable of being serviced by public utilities including garbage removal, snow clearance, and fire and police emergency services?	
G.3(a)	What is the density of the project and does this meet the requirements and standards set by the town?	
G.3(b)	Is the density appropriate for the type of housing proposed and will the distribution of buildings on the site create a feeling of crowding or lack of privacy for the residents?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.3(c)	Is adequate space between buildings being provided?	
G.3(d)	Is there adequate open space on the site?	
G.4(a)	Has the project a clear identity?	
G.4(b)	Are the units arranged so as to create a sense of community?	
G.4(c)	Can the main entry point to the unit (either the door or walkway) be seen from the access street or walkway and be easily identified?	
G.5(a)	Is the project as well as the individual dwelling sufficiently protected against noise and disturbances from traffic, parking areas, play areas, and neighbours?	
G.5(b)	Are the buildings and the individual dwelling sufficiently protected against **visual intrusion** from neighbours, passersby, adjacent roads, and parking areas?	
G.5(c)	Can the outside entry be overlooked from the interior so that unexpected and unsolicited visitors can be controlled?	
G.6(a)	Have entry and exit locations to the site been considered in relation to the local road system?	
G.6(b)	Has the project been designed to provide access for emergency vehicles (Police, Fire and Ambulance)?	
G.6(c)	Are parking areas convenient and accessible to dwelling units?	
G.6(d)	Have circulation paths (roads and sidewalks) been designed to facilitate handicapped people, snow clearance, and maintenance?	
G.6(e)	Are directions to locate units clear, adequate and not misleading?	
G.7(a)	Is there an adequate amount of parking provided for company vehicles, residents, recreation vehicles and visitors?	
G.7(b)	Are access points to parking areas from public roads acceptable?	
G.7(c)	Is parking conveniently located within the project?	
G.7(d)	Is there adequate separation space or screening between parking areas and outdoor living areas and habitable rooms in any units?	
G.7(e)	Is vehicular traffic controlled or restricted in areas adjacent to play spaces?	
G.7(f)	Is the parking area located so as not to interfere with service areas and the maneuvering of service vehicles?	
G.7(g)	Is the parking area well lit and designed to allow for casual surveillance by residents? Is the parking area safe from vandalism?	
G.7(h)	Has a specific parking space been provided where minor repairs and maintenance can be undertaken?	
G.7(i)	Are existing streets wide enough for on-street parking?	
G.8(a)	Has a suitable area been set aside for public open space? Does this area allow for "public" and "private" activities and spaces, and for passive as well as active uses?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
G.8(b)	Does the location of open space: — allow for casual surveillance by project residents, — provide a safe and secure environment, and — allow for maximum sun exposure?	
G.8(c)	Has a landscape plan been prepared for the site?	
G.8(d)	Have the natural features of the site been adequately considered in the landscaping plan?	
G.8(e)	Has the perimeter of the site been properly landscaped in relation to the adjacent uses?	
G.8(f)	Are residents able to contribute to the landscaping and planting of the project?	
G.9(a)	Are there places where individual residents in the project can initiate and organize private or resident activities and accommodate groups for formal or informal meetings?	
G.9(b)	Has adequate provision been made for refuse and maintenance equipment storage?	
G.9(c)	Has bicycle storage been provided?	
G.10(a)	Does the site planning of the project take into account that the whole site will become a play area for children?	
G.10(b)	Has a wide variety of safe play areas and surfaces been provided to accommodate the wide range of activities and interests of children?	
G.10(c)	Has adequate play area been provided based on the likely number of children living in the project?	
G.10(d)	Has winter use of the site been considered?	
G.10(e)	Can children's play areas be supervised by adults from the adjacent dwellings and by the casual observer?	
G.10(f)	Are the play areas safe?	
G.11(a)	Is there continuity and consistency to the overall architectural expression of the project?	
G.11(b)	Does the overall project look attractive?	
G.11(c)	Have exterior finish materials been selected with consideration being given to maintenance and upkeep, durability and weathering, cost, availability, local technology and aesthetics?	
H.1(a)	What types of units are proposed and how many?	
H.1(b)	Are the needs of different users accommodated, such as: — Single parent families, — Married couples with no children, — Married couples with children, — Families which include three generations, — Singles, — Senior citizens; and — Handicapped persons?	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.1(c)	If there are many types of user, are they grouped accordingly?	
H.2(a)	Is it possible to use the spaces within the unit in a variety of ways?	
H.2(b)	Are materials and finishes durable and practical, yet adaptable to the needs of changing occupants?	
H.2(c)	Can furniture be moved in and out without damaging the building, unit or yard?	
H.3(a)	Can the unit be occupied comfortably, regardless of the furnishings one possesses?	
H.3(b)	Do the layout, materials and finishes in the unit facilitate ease of maintenance and housework?	
H.3(c)	Are walls, floors and stairways between units adequately soundproofed?	
H.3(d)	Does the design and structure of each unit permit: — privacy within the unit for family members? — control over noisy activity spaces within the unit?	
H.4(a)	Does the unit have direct access from a public walkway or corridor?	
H.4(b)	Does the unit have convenient access to the car parking or drop-off area for loading and unloading of people, groceries and baggage?	
H.4(c)	If the unit is above grade, is ground access easy and direct?	
H.5(a)	Are the type and location of the heating source well chosen?	
H.5(b)	Is the building designed in a simple compact form with a minimal amount of exterior surface?	
H.5(c)	Have devices such as trellises, shading elements (awnings), windscreens and shelters been utilized to control climate?	
H.5(d)	Is the sun allowed into the unit in the winter and is it shaded in the summer?	
H.5(e)	Are living spaces located on the south side of the unit and exposed to the sun?	
H.5(f)	Can the unit be heated through the use of passive solar heating methods?	
H.6(a)	Entry	
H.6(b)	Can the main entry to the unit be seen from the public street and be altered in design or appearance by the occupant?	
H.6(c)	Is the main entrance overlooked from within the unit and does it have security viewing?	
H.6(d)	Living Room	
H.6(e)	Dining Room	
H.6(f)	Kitchen	
H.6(g)	Bathroom	

COMMENTS	REFERENCES

KEY	QUESTIONS	DEALT WITH
H.6(h)	Bedrooms	
H.6(i)	Laundry Area	
H.6(j)	Basement	
H.7(a)	Is there exterior access to the outdoor living area?	
H.7(b)	Does the outdoor living area have paved and lawned surfaces to accommodate a variety of activities?	
H.7(c)	Can children and pets be contained in the outdoor living area and be observed from the unit?	
H.7(d)	Is the outdoor living area located at grade, or does it have immediate access to grade?	
H.7(e)	Is the outdoor living area large enough to meet the needs of the range of family activities applicable to the type of unit?	
H.7(f)	Have the outdoor living areas been arranged to maximize available opportunities for a view and access to sunlight and ventilation?	
H.7(g)	Does every dwelling possess a private outdoor space designed so that at least one part of it cannot be seen or intruded upon by neighbours, and is it possible for the occupant to adjust the space to suit his/her own requirements for security and privacy?	
H.7(h)	Is the outdoor living area buffered from noise from the surrounding site activities and public streets?	
H.7(i)	Can the front of the unit be landscaped and/or enclosed by the occupants?	

COMMENTS	REFERENCES

PART V.I — Glossary of Terms

ABOVE GRADE

- Having no direct access to the ground within the boundaries of the dwelling or its adjacent exterior spaces.

AMENITY AREA

- Space outside the dwelling unit, but within the boundary of the project, intended for the passive enjoyment and active recreational needs of the residents. It may include landscaped areas, hobby rooms, patios, balconies, swimming pools and the like.

APARTMENT BUILDING

- A multiple dwelling comprising three or more dwelling units with shared entrances and other essential facilities and services and with shared exit facilities provided for dwelling units located above the first storey.

AT GRADE

- Having direct access to the ground from within the dwelling or its adjacent exterior spaces. An intensively developed roof deck no more than 7 meters above the natural ground may be considered to provide an "at grade" situation.

BACHELOR DWELLING UNIT

- A dwelling unit, without one standard bedroom, providing therein living, sleeping, eating, food preparation and sanitary facilities for one or two adults. Other essential facilities and services may be shared with other dwelling units.

BACKYARD

- The space between the rear of the dwelling and the rear lot line.

BALCONY

- An exterior floor area above grade provided with access from an adjoining dwelling.

BERM

- An earth embankment.

BUFFER

- Separation device between two incompatible land uses which serves as a barrier for both vision and sound. It can be a berm, a strip of land, trees, a fence or hedge.

CLUSTER HOUSING

- Can mean:
  - a) a group of attached dwellings arranged in an identifiable group.
  - b) a group of single detached dwellings arranged in identifiable groups or to form a visually cohesive group.
  - c) a group of attached dwellings arranged around a common area.
  - d) a group of single detached dwellings arranged around a common area.

COMMUNAL AMENITY AREA

- An area within the boundary of the project used on a shared basis by the residents for their enjoyment and recreation; can be outdoor open space or indoor facilities.

COMMUNAL OPEN SPACE

- Open space allocated for the communal activities of the residents, both adults and children, such as outdoor areas for play and sports and for passive use (sitting, viewing).

COMMUNITY FACILITIES

- Services which complement a residential area such as: community centres, public libraries, parks, playgrounds, schools, hospitals, shopping, medical and dental clinics.

COMPREHENSIVELY PLANNED HOUSING

- Housing built by means of a development process in which the location and design of the individual dwelling units is an integral part of the planning and design of the project site, including the vehicular and pedestrian circulation system, services, open spaces, landscaping and so on. This type of development may be applied to a variety of housing types, such as:
  - — small lot housing
  - — horizontal row housing
  - — stacked multiple housing
  - — apartment buildings

DENSITY

- Density can be defined by persons per hectare, bedrooms per hectare, units per hectare, and by gross floor area index. Persons per hectare are generally used for defining densities in General Municipal Plans and Area Structure Plans. Units per hectare is the method generally used in Tentative Plans of Subdivision and in evaluating individual housing sites or blocks. Units per hectare (or alternatively, site area requirement per unit), or gross floor area index are the most common methods of defining density in Land Use By-laws. The following definitions of net-net density, net and gross density and gross floor area index are used in this document.

  Net-net density means the density related to the net site area excluding public roads.

  Net density, in fee simple developments, includes the local public road serving the housing units but not the residential collector road. In group developments (condominium, co-operative, or rental developments), it includes the private residential street, driveways, and parking areas, and that portion of the public street which provides direct driveway access to each individual unit.

  Gross residential density means the neighbourhood or community density and includes local residential streets, collector roads, the public parks and open space system, and the public institutional and commercial sites serving the community.

  Gross floor area index means the gross floor area of the dwelling units of a site divided by the area of the site, where the area of the site is the net area excluding public roads but including private roads, driveways, and parking areas.

DWELLING UNIT

- A room or suite of rooms operated as a housekeeping unit, used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

"Dwelling, Single Family" shall mean a separate building containing one dwelling unit only.

"Dwelling, Multiple" shall mean a building containing more than one dwelling unit.

"Dwelling, Semi-detached" shall mean a building containing two dwelling units horizontally attached.

"Dwelling, Duplex" shall mean a separate building containing two dwelling units vertically attached.

[NOTE: Semi-detached and duplex are sometimes used synonymously]

"Dwelling, Double Duplex" shall mean a separate building containing two duplex units horizontally attached.
"Dwelling, Duplex Horizontally Attached" shall mean a separate building containing two or more duplex units horizontally attached.
"Dwelling, Triplex" shall mean a separate building containing three dwelling units vertically attached.
"Dwelling, Multiple Attached" shall mean a building consisting of a series of three or more dwelling units which are horizontally attached. Under this definition would fall the following categories of dwellings which presently may be separately defined:
"Dwelling, Row" shall mean a building consisting of a series of three or more dwellings horizontally attached and having a front and a rear yard.
"Dwelling, Row, Back to Back" shall mean a building consisting of a series of three or more dwelling units horizontally attached and having a front yard but no rear yard.
"Dwelling, Quadrex" shall mean a building consisting of four dwelling units so attached that each unit has two common party walls.
"Dwelling, Garden Court Apartments" shall mean a group of multiple dwellings not more than two and one half storeys high with large open spaces for lawns, landscaping, and recreation, and held under a single ownership.
"Dwelling, Stacked Row House" shall mean a building not more than four storeys high, excluding a walkout basement, consisting of a series of four or more dwellings which are horizontally and vertically attached or stacked with each dwelling unit having a separate entrance at grade, where grade is defined as natural grade, or a terrace, or a roof terrace.
"Court House" shall mean a single detached dwelling unit or an attached dwelling unit which is arranged around an exterior court, with two, three, four or more walls of the dwelling unit arranged around the court.

EASEMENT

- A right to use land, generally for access to other property, or a right-of-way for a public utility.

FAMILY UNITS

- To best satisfy the requirements of families with children, family units in a development should have the following characteristics:
  - — a housing unit containing two or more bedrooms
  - — a ground-oriented dwelling unit
  - — access to and parking for a car
  - — traffic separation between motor and pedestrian routes
  - — privacy, both visual and from external noise sources
  - — individual and community amenity areas including play spaces and spaces for spontaneous play.

FRONT YARD

- The space between the public street or walkway and the dwelling, related to the main entry to the dwelling.

HABITABLE ROOM

- Any room or space intended primarily for human occupation, such as kitchens, living rooms, family rooms, bedrooms, dens and finished recreation rooms.

HOUSING FOR THE ELDERLY

- A dwelling designed to accommodate the changing physical capacities for older adults.

HOUSING FOR THE HANDICAPPED

- A dwelling designed to accommodate the physical capacities of the infirm or injured.

INDIVIDUAL AMENITY AREA

- An area within the boundary of the project for the private use by the residents for their enjoyment and recreation.

MEDIUM DENSITY HOUSING

- A residential development with a gross density of 22-90 units per hectare (9-36 units/acre). This covers a wide range of ground access and walk-up housing forms with a maximum height usually of 4 storeys.

MULTIPLE FAMILY HOUSING

- A housing form (dwelling type) or residential development to be used by more than one family.

NON-HABITABLE ROOM

- A room not intended primarily for human occupancy, such as a bathroom, entryway, or storage area.

NUISANCE

- Any use, prevailing condition or activity which has a detrimental effect on living conditions.

OUTDOOR LIVING AREAS (O.L.A.)

- An outdoor space adjacent to and directly accessible from the unit and for the exclusive use of the residents of that unit.

PERFORMANCE CRITERIA

- Objectives to be achieved in the design and planning of an environment.

PLAY SPACE

- An area within a neighbourhood or community developed exclusively for children's play.

PRE-SCHOOL AGE

- Children ranging in age from infancy to 6 years.

PRINCIPAL HABITABLE ROOMS

- The kitchen, dining and living rooms of a dwelling.

PRIVACY ZONE

- An area external to the unit, and in particular to the principal living room and other habitable room windows, which is not to be used for communal or public activities.

PRIVATE AREA

- That part of the outdoor living area providing visual privacy from adjacent areas.

PUBLIC AREA

- Any exterior space not for the exclusive use of the occupants of an individual dwelling.

PUBLIC OPEN SPACE

- Land and facilities which are not in private ownership and are open to use by the public.

RECREATIONAL VEHICLE

- Includes a variety of motorized vehicles such as snowmobiles, camper vans and motorized homes as well as un-motorized equipment such as trailers, sailboats and trailer homes.

ROOF DECK

- An exterior space on a building intensively developed as an artificial grade.

SCHOOL AGE

- Children 6 to 14 years of age.

SCREENING

- Planting, fencing, walls or berms which are used alone or in combination to provide visual and acoustic separation, climatic protection and territorial definition.

SEPARATION SPACE

- Open space around dwelling units to ensure an appropriate environmental context for activities undertaken within the dwelling units.

SITE LANDSCAPING

- A comprehensive integration of plant and man-made materials into a functional and environmentally sound site plan.

TANDEM PARKING SPACE

- A single parking stall of sufficient length to allow two vehicles to be parked one behind the other.

TERRACE

- A flat roof or open platform adjacent to and provided with access from a dwelling.

ZERO LOT LINE HOUSING

- A special form of fee simple housing which locates dwelling units on the lot in a manner that permits maximum utilization of the exterior open space on the lot. Zero yards are usually used for side, or rear yards where these yards serve no siginficant purpose. One wall of the house is located on the lot line. Yard requirements are designed for their functional and visual utility. A minimum requirement for distance between dwelling units is a prerequisite for developments in which zero lot line housing is permitted, and such distances between buildings or adjoining properties must be guaranteed in the title of each property.

PART V.J — Bibliography

Doc. #1
— **Parking Areas Advisory Document**
Klein & Sears,
Research/Planning/Architecture for Canada
Mortgage & Housing
Corporation (CMHC)
Reference NHA 5239 80/03

An advisory document intended to supplement the performance standards of CMHC — **Site Planning Criteria** by explaining and illustrating more extensively the factors to consider in planning and designing parking areas. Includes a checklist for evaluating site plans.

Doc. #2
— **Site Planning Guidelines for Medium Density Housing**
Henry Fliess & Partners,
Architects & Planners
under the direction of the
Local Planning Policy
Branch, Ontario Ministry
of Housing January, 1980
Available from the
Ontario Government
Bookstore 800 Bay Street,
Toronto, Ontario M7A 1N8

A guideline aimed at medium sized and smaller communities which have none or limited staff resources. Discusses some of the major elements of medium density housing (i.e., "Density and Housing Form", "Community and Recreational Facilities", "Parking", "Roads and Drainage") and suggests alternative solutions to the common design problems.

Doc. #3
— **Urban Planning and Design Criteria**
J. De Chiara &
L. Koppelman Van
Nostrand Reinhold Co.
1975

A standard reference book, encyclopedic in scope, from which material relevant to medium density housing can be selected. Includes sections on "Master Plan Studies", "Sub-Division and Land Development", "Vehicular Circulation" and "Neighbourhood Unit and New Town Concepts".

Doc. #4
— **Outdoor Living Areas Advisory Document**
Klein & Sears,
Research/Planning/Architecture for CMHC.
Reference NHA 5329 80/10

Its purpose is to supplement and amplify the information in CMHC **Site Planning Criteria** and to assist in identifying alternative solutions that more sensitively respond to individual solutions to outdoor living areas. (Includes a check list summary.)

Doc. #5
— **Site Planning Criteria —**
CMHC
Reference NHA 5214

This manual is the single most important publication on the subject of Canadian residential site planning. CMHC uses the criteria and standards in the document and its companion publications (see above) in the review of plans for housing for which financing under the National Housing Act is being sought. In practice, the criteria also have extensive indirect influence.

Doc. #6
— **Housing Families at High**
Densities
for the Greater Vancouver
Regional District

A resource document which outlines the need, principles, and recommendations for designing medium and high density housing for families with children.

Doc. #7
— **A Qualitative Checklist for**
Compact Housing
Norman Hotson,
Architects for Greater
Vancouver Regional
District and Canadian
Housing Design Council -
1975

A graphically illustrated checklist for medium density housing, which does not state definitive criteria, but asks a series of questions and offers suggestions and ideas for possible solutions or approaches.

Doc. #8
— **Play Opportunities for**
School-Age Children 6 to
14 Years of Age -
Advisory Document
Children's Environments'
Advisory Service CMHC
Reference NHA 5318 80/04

Describes verbally and visually the outdoor play needs of the 6 - 14 years age group, including sections on the location, area requirements and design parameters of outdoor play areas for this age group.

Doc. #9
— **Play Spaces for**
Pre-Schoolers
CMHC Reference
NHA 5138 M 79/08

Graphically illustrates the characteristics and outdoor play needs of children under six, and children's activity areas in relation to communal spaces in medium to high density residential areas. Sections on the size and location of play space, its design, landscaping and operation, are directly relevant to site planning.

Doc.#10
— **Creative Playground**
Information Kit
Children's Environments'
Advisory Service - CMHC
Reference
NHA 5104 M 79/07

An advisory kit of drawings, cost sheets and explanations on creative playgrounds, which are playing and learning spaces designed to nurture the child's total development - his/her creative, social, emotional, cognitive and physical growth.

Doc.#11
— **Adventure Playground**
Information Kit
Children's Environments'
Advisory Service - CMHC
Reference
NHA 5105 M 79/07

An advisory kit on cost, setting up and managing an Adventure Playground. An Adventure Playground is a place where children of all ages, under friendly supervision, are free to do many things they can no longer easily do in our crowded urban society: things like building - huts, forts, tree-houses; lighting fires and cooking; tree-climbing, digging, camping; as well as playing team and group games, reading or doing nothing. It must also be a place where children just meet and talk in a free, relaxed atmosphere.

Doc. #12
— **Site Planning Standards**
J. De Chiara and L.
Koppelman McGraw-Hill
Book Company, 1978

A graphic reference of current standards, design details, analytical methods and design procedures. Includes sections on "Preliminary Site Investigation and Analysis", "Factors Affecting Building Location and Orientation" and "Residential Site Development".

Doc. #13
— **Housing the Handicapped**
CMHC Reference
NHA 5076

This reference document deals with the issues and criteria in planning and designing projects, buildings and dwelling units to be used by handicapped persons.

Doc. #14
— **User Generated Program**
for Low Rise Multiple
Dwelling Housing
R. Beck and P. Teasdale
for CMHC

A summary of a research project which includes a point by point discussion and check list covering most aspects of site organization and dwelling unit design, planning and management.

Doc. #15
— **Builders' Guide to Energy**
Efficiency in New Housing
The Housing and Urban
Development Association
of Canada and the Ontario
Ministry of Energy
January, 1980

The purpose of this guide is to give the average Canadian builder practical information and guidance in the area of energy conservation in new housing. It offers useful suggestions for planning, designing and building a more energy efficient home. The guide provides advice on energy efficient techniques suitable for low-rise housing (singles, semis and duplexes, row housing, and walk-up three-storey apartments).

Doc.#16
— **Housing the Elderly**
CMHC Reference
NHA 5075, 1975

An advisory document dealing with desirable standards of housing designed specifically for elderly people who are sufficiently healthy and mobile to live independently in self-contained dwelling units. Its purpose is to assist those intending to organize, finance, design, or build housing for the elderly. It should provide a starting point for discussion, with local conditions pointing to final modifications of design and criteria.

Doc. #17
— **Alberta Building Code**
1981, Part 9,
"Housing and Small
Buildings"

This part of the code provides detailed requirements for the construction of houses and small buildings up to 600m^2 per floor and 3 storeys in height. Includes information on room and space dimensions, means of egress, garages and carports.

Doc.#18
— **Energy Efficient Housing;**
A Prairie Approach
Alberta, Energy and
Natural Resources,
Saskatchewan, Mineral
Resources Office of
Energy Conservation.
1980

This illustrated and fairly technical document deals with energy conservation measures for new homes as well as refitting older homes. Areas of concern include "Air Tightness", "Insulation", and "Passive Solar Gain".

Doc.#19
— **Residential Site**
Development
Advisory Document
CMHC NH 18-2/5E

An illustrated advisory document that presents a wide range of information concerning the design and development of residential subdivision. It amplifies **Site Planning Criteria** (Doc. #5) and suggests detailed planning and design considerations that site developers should take into account.

PART V. K — Manual Evaluation

[redacted] Services Division to evaluate the effectiveness of this document after people have had some opportunity to apply it. If you have left your name with us, you will be contacted in about one year from the publishing date with a view to completing this questionnaire and attending a seminar at which modifications and improvements to this manual can be developed. Your completion of this evaluation questionnaire at that time will be appreciated.

If you have **not** left your name with us, but would like to be contacted for the follow-up seminar, please complete this evaluation questionnaire after you have used this manual a number of times, and forward it to:

"EVALUATING MULTIPLE FAMILY
AND MEDIUM DENSITY HOUSING"
Alberta Municipal Affairs
Planning Services Division
7th Floor, Jarvis Building
9925 - 107 Street
Edmonton, Alberta
T5K 2H9

Table of Contents	**Which of these sections have you used most frequently?**
Part I — Preparing for Development	
A. The Approval Process	
B. Ownership and Finance	
C. Demand and Market Analysis	
D. Management and Maintenance	
Part II — The Site	
E. Community Context	
F. The Site	
G. Site Design	
1. Factors Affecting Building Location Siting	
2. Services	
3. Density	
4. Identity	
5. Security and Privacy	
6. Access and Circulation	
7. Parking	
8. Open Space and Landscaping	
9. Site Amenities and Services	
10. Children's Play Areas	
11. Architectural Control	
Part III — The Unit	
H. Unit Design	
1. Unit Type Mix	
2. Adaptability of the Unit	
3. Comfort and Convenience	
4. Accessibility and Circulation	
5. Energy Conservation	
6. Spaces Within the Unit	
7. Outdoor Living Area	
Part IV — Summary Evaluation	
Part V — Appendices	
I. Glossary of Terms	
J. Bibliography	
K. Manual Evaluation	

Please give specific examples of how these sections have helped you achieve a better development.	Are some parts unclear or unnecessary?

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